S
333.7
E29mx
1980

Montana Energy Extension Service State Plan

STATE DOCUMENTS COLLECTION
PLEASE RETURN

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION
ENERGY DIVISION

JULY, 1980

DNRC

EES

MONTANA STATE LIBRARY
S 333.7 E29mx c.1
Montana Energy Extension Service :state
3 0864 00035049 9

Montana
Energy Extension Service
State Plan

Energy Division
Department of Natural Resources
and Conservation
32 South Ewing
Helena, Montana 59601

July 1980

EXECUTIVE SUMMARY

The Montana Energy Extension Service (EES) is part of a national program established by Congress and funded by DOE. This program will provide personalized assistance to small energy users and to those who influence the consumption of small energy users. The main objective is to encourage consumers to increase their use of energy conservation and renewable energy. By emphasizing local networks, EES offers Montanans a choice in determining how they will make the transition to more conservation and use of renewable energy.

EES will provide services for cities and counties, public libraries, lending institutions and the general public. The four program measures are: Local Governments Program Measure, Technical Reference Center Measure, Building and Finance Program Measure, and Master Conserver Program Measure. This application contains a three-year program plan and a work plan and budget for the first year. The budget for calendar year 1980 is $289,600.

Local governments are the primary target audience for EES. Local governments are major consumers of energy themselves, and more important, they determine in part the energy consumption of residents within their jurisdictions. EES first will encourage local governments to become more energy efficient in their own operation. Second, EES will encourage local governments to consider energy when exercising their authority in zoning, subdivision regulation, and expenditure of community development funds. During 1980, EES will assist the ten largest cities to develop energy management plans and will provide grants to four of them to implement those plans. EES will also assist the next eighteen largest city and town governments in developing energy consumption profiles. These profiles will later aid them in developing energy management plans. EES will begin work on model energy-aware regulations for all local governments. EES will start work with county governments in 1981.

EES will work with the public library system to improve its ability to serve as technical reference centers on energy. EES will train librarians in energy conservation, renewable energy and reference accessing techniques. EES will strengthen the inter-library loan system and will provide guides to readers interested in various energy topics. During the first year, the Lewis and Clark Library in Helena, with EES support, will take the lead in developing a community energy information and referral network in Helena. Lewis and Clark Library will work closely with local businesses, citizen groups and the utilities to guarantee that wherever a person asks about energy conservation or renewable energy, they will be referred to the best sources of information. This network, if successful, will later be expanded to other cities.

The development of conservation and renewable energy requires access to capital. EES will work with lending institutions to establish procedures which increase the significance of energy as a criterion in granting loans in the residential and commercial sectors. Business input to this effort is essential; EES will pilot this measure in Billings, working through the Building and Finance Committee of the Billings Community Energy Program (BiCEP).

Citizens make household energy decisions, relying on informal neighborhood networks to provide information. EES, in conjunction with the Cooperative Extension Service, will strengthen these networks by training volunteers to become "master conservers." These volunteers will answer energy conservation and renewable energy questions phoned in by residents of their community. This measure is modeled after Cooperative Extension's successful Master Gardener Program.

TABLE OF CONTENTS

SECTION 1: EES Objectives 1
A. EES Objectives 1
B. State Program Strategy 4
C. Supplementing and Coordinating with Other Conservation Activities 7
D. Overview of Certain Statutory Requirements 9

SECTION 2: State Program Measures 11
A. Local Governments 11
B. Technical Reference Center 14
C. Business and Finance 17
D. Master Conserver 19
E. Program Administration 22

SECTION 3: EES Administering Organization 23
A. EES Administering Organization 23
B. Coordination Procedures 23
C. Relationship to the EES Grantee 25

SECTION 4: Barriers to Energy Conservation 27

SECTION 5: Administrative Procedures 29
A. Responding to Public Suggestions and Inquiries 29
B. Publicizing Conservation Services 29
C. Reviewing Publications for Technical Accuracy 29

SECTION 6: Independent Evaluation 31

SECTION 7: Additional Technical Support 33
A. Centralized Technical Support 33
B. Technical Support Institute 33

SECTION 8: Implementation of the State Plan 35
A. Procedures to Achieve Timely Implementation 35
B. Recordkeeping Assurance 35

SECTION 9: Budget 37

SECTION 10: Grant Management Summary Reports 49

APPENDIX A: Comment Process Description 57

APPENDIX B: Compliance with Regulations 61

BIBLIOGRAPHY 69

SECTION 1:
EES OBJECTIVES

Definitions: The definitions provided by DOE have been changed for clarification and to bring Energy Extension Service (EES) terminology into conformity with Energy Division practice.

Program measure refers to a set of related services provided to a target audience which is used to implement a portion of a State plan. This definition is equivalent to DOE's definition of "program".

Small energy users means residential consumers, individuals and groups of individuals, small businesses including agricultural and commercial establishments, and units of State and local governments. This is the same as the definition used by DOE.

Sustainable energy refers to energy conservation, efficient energy use and the utilization of renewable energy resources. This definition is equivalent to DOE's definition of "energy conservation".

SECTION 1.A. EES OBJECTIVES

Congress established a national Energy Extension Service program in June, 1977 (Title V, PL 95-39). The goal of this program, as defined by the US Department of Energy (DOE), is to save energy through direct and personalized assistance, either to small energy users or to those who influence the consumption of small energy users. In the context of this program, to save energy is to apply sustainable energy techniques and technologies. Therefore, to succeed, EES must facilitate the adoption of sustainable energy techniques and technologies by small energy users in Montana.

EES will enter a situation which is unsettled and ambiguous. Energy policy is subject to constant reassessment. No one explanation of recent fuel supply disruptions stands out as clearly acceptable. Further, energy needs are only one consideration in the development of energy policy. Provision of jobs and preservation of the environment and of a way of life are additional factors which Montanans weigh when they look at their energy future.

In spite of the multitude of issues to consider, three points remain clear: First, the supplies of fossil fuel and centralized hydro-electricity eventually will not be sufficient to meet the demand for energy. Second, Montana is better able than most states to employ sustainable energy to a significant extent. Third, Montanans have already made a commitment to the use of sustainable energy.

Montana is rich in fuel supplies, but supply disruptions, such as the shortage of diesel fuel in the summer of 1979, already have occurred and undoubtedly will reoccur. Although Montana produces more crude oil than it consumes in petroleum products (30,696,000 barrels vs 24,567,000 barrels in 1977), most oil refined in Montana comes from other states (41.8%) or from Canada (43.3%). Products from Montana refineries are distributed according to the priorities of the regional market, which includes Montana, and parts of Washington, Idaho, the Dakotas, and Wyoming. Approximately three-quarters of the natural gas consumed in Montana comes from Canada, and is vulnerable to decisions of the Canadian National Energy Board. Montana exports almost one quarter of the electricity generated in the state. Sixty-three percent of that electricity is generated by hydro and is susceptible to disruption by droughts, as was the case in 1977. All but a small portion of the remainder is generated in coal-fired plants. (Montana has extensive coal reserves, but Montanans do not agree on how that resource should be exploited.) (All data in this section is from Historical Energy Statistics Vol. 3, DNRC, 1979.)

In contrast to the strain put on conventional fuel supplies, Montana has extensive reserves of renewable resources which have scarcely been tapped. A rough estimate prepared for Water Resources Division, DNRC, indicated that sustainable energy could provide all but 2.38 Trillion BTU's (430,000 barrels of oil equivalent) of

the end use energy required in Montana west of the continental divide in the year 2000 (Nybo, 1979). Montana is far better suited than most areas to rely heavily on sustainable energy. Montanans can tap a range of renewable resources - direct solar, biomass, wind, hydro and geothermal. Montana's small, dispersed population is ideally sized for renewable energy applications. As an area of growing population, energy-efficient capital stock can be phased in easily, with less disruption than would be the case in areas of stable population.

In addition to an ample renewable energy resource base, Montana has already indicated an ability to support the adoption of sustainable energy techniques and technologies. The 1975 Legislature passed the Alternative Renewable Energy Sources Act, which allocates a portion of the revenues from the coal severance tax to grants for the demonstration and commercialization of renewable energy technologies. The State supports a number of other programs in conservation and renewable energy as well. (See Section 1.C for program descriptions and goals.) Citizen groups interested in renewable energy are active across the state. Numerous businesses manufacturing everything from insulation to wood stoves to flat-plate collectors now operate in the state.

Many Montanans agree that the transition to sustainable energy is desirable (see *Montana Solar Public Opinion* Survey, MEO, 1978). As Governor Judge said in his energy report to the state, "... the era of cheap and abundant energy is over. (Conservation) is the most effective, cheapest and most reliable source of energy supply" (7-31-79). There is less agreement, however, on the speed at which that transition should proceed and the direction it should take.

Accordingly, to allow Montanans maximum flexibility in determining how they will make a transition to sustainable energy, *EES will concentrate on services which will result in the development and reinforcement of networks which can assist energy users in making that transition*. EES primarily will work with groups which influence the consumption patterns of small-scale energy consumers. EES also will work to incorporate energy information sources in local information centers. This strategy lays the foundation on which community decisions about future energy use can be made. Also, this strategy recognizes the limitations imposed by available funding, limitations which preclude following the Cooperative Extension Service model of local agents stationed in communities across the state.

EES services are targeted at four audiences: local governments, public libraries, lending institutions, and people making home improvements.

Local governments will be the principal center of influence with which EES will work. They are directly responsible to the people living in a defined area. The long-range goal is to develop, through local governments, sustainable energy systems appropriate to the area and the needs of the residents. Though this goal probably will not be realized through EES, a foundation can be laid by EES.

Development of sustainable energy will require access to capital. EES will work with lending institutions to encourage capital to be directed towards energy-efficient operations. Lending institutions can influence the use of sustainable energy in both the residential and the commercial sectors, and can do so in the course of their normal operations.

EES also will encourage the development of local energy information sources, by strengthening the technical reference capabilities of the local libraries and by developing groups of volunteer para-professionals in sustainable energy.

These target audiences were selected on the basis of their social roles and influence in Montana. Ideally, the targeting of services should be based on an analysis of end-use requirements for energy, what they are and the degree to which they can be modified; unfortunately, data for such an analysis do not exist. The most comprehensive data available were compiled by MERDI (1977) on the basis of the Federal Energy Administration's Son of Strawman model. Residential sector consumption was set at about 15 percent of total energy use in Montana, commercial sector - including government buildings - at about 15 percent, industrial sector at about 44 percent, agricultural sector at about 4 percent, and transportation at about 31 percent. Disaggregated data could not be obtained. With the bulk of the industrial sector composed of large businesses, and the transportation sector already covered by other state energy programs, the available data were of little use in selecting target audiences.

The MERDI papers were more helpful in determining which sustainable energy techniques and technologies to emphasize. All program measures will concentrate on techniques and technologies appropriate to the provision of low-grade heat, which accounts for 88% of energy use in the residential sector and 64% of the energy consumed in commercial buildings (MERDI, 1977). Techniques and technologies of emphasis include weatherization, HVAC maintenance and operation, and passive solar.

EES will implement this strategy through four program measures: Local Governments Program Measure, which is composed of two submeasures, Local Government Energy Management (LGEM) and Energy and Community Planning (E&CP); Technical Reference Center Program Measure (TRC); Building and Finance Program Measure (B&F); and Master Conserver Program Measure (MC). These program measures are outlined in Exhibit 1.

EXHIBIT 1
EES STRATEGY AND OBJECTIVES

Target Audience	Program	Expected Impact		
		On Knowledge	On Attitudes	On Behavior
1a. Local Government (LGEM)	Provide information, face-to-face counseling and implementation workshops for 80% of governments of cities over 1000 population (N = 60) or for governments of counties with a large population growth (increase in population, 1970-1977 > 1,000; N = 16) encouraging them to implement a government-wide energy management plan. Provide follow-up assistance to 40% of large towns (population > 9,000; N = 10) and 33% of largest growth counties (increase in population, 1970-1977 > 3,000, N = 9).	To have 75% of the target audience contacted evidence greater knowledge about energy management plans.	To have 50% of the target audience contacted indicate they will seriously consider implementing an energy management plan.	To have 17% of the target audience contacted implement an energy management plan.
1b. Local Government (E&CP)	Provide information, face-to-face counseling and seminars for 70% of large growth counties (N = 16) and governments of cities > 1000 population in those counties (N = 27) encouraging them to consider energy implications whenever exercising their regulatory authority.	To have 65% of the target audience contacted understand the benefits of such an approach.	To have 33% of the target audience contacted indicate they will seriously consider changing their regulatory procedures.	To have 21% of the target audience contacted adopt energy regulations or development strategies.
2. Libraries (TRC)	To provide information, workshops and practical demonstrations to 90% of the public libraries in Montana (N = 89) encouraging them to serve as technical reference centers in energy for their area.	To have 90% of the target audience contacted evidence greater knowledge about accessing sustainable energy information materials.	To have 22% of the target audience contacted indicate they will consider implementating energy outreach services for their patrons.	To have 7% of the target audience contacted operate as technical reference centers.
3. Lending Institutions (B&F)	To provide information and seminars to 50% of the banks (N = 159) and savings and loan institutions (N = 31) in Montana to discuss the financial benefits of considering energy use in qualifying applicants for loans, and to provide 12 energy audits of financial institutions to demonstrate the validity of such considerations.	To have 90% of the target audience contacted understand the use of sustainable energy and its effect on loan risk.	To have 60% of the target audience contacted consider changing their analytical procedures to give energy use greater consideration.	To have 33% of the target audience contacted change their loan procedures.
4. Homeowners (MC)	(Pilot Phase) To provide information to 5% of owner-occupants in three counties (N = 44,500) encouraging them to apply weatherization, passive solar and efficient heating plant techniques and technologies in their homes.	To have 90% of the target audience contacted show a greater understanding of weatherization, passive solar and heating plant efficiency.	To have 60% of the target audience contacted perceive the benefits of weatherization, passive solar and heating plant efficiency and plan to implement the same.	To have 30% of the target audience contacted retrofit their homes.

SECTION 1.B. **STATE PROGRAM STRATEGY**

EES will have four program measures: Local Governments, Technical Reference Center, Building and Finance, and Master Conservers. These deal primarily with those who influence the consumption of energy. The intent is to build a framework to facilitate greater use of sustainable energy. This program is scheduled to run for three years, until December, 1982.

The Local Governments Program Measure is the major component of EES. It is broken into two submeasures: Local Government Energy Management, and Energy and Community Planning.

The Local Government Energy Management submeasure is aimed at the governments of cities, towns and counties. Its intent is to improve the energy efficiency of local government operations, especially those involving buildings and vehicle fleets. Technologies and techniques for weatherization, passive solar, HVAC efficiency, and vehicle fleet management will be of primary concern. Services to be delivered include provision of information on sustainable energy, assistance in developing energy management plans, workshops and seminars on plan implementation, and a limited number of implementation grants. The first year budget is $120,995.

The Energy and Community Planning submeasure attempts to influence the amount and kind of fuels used in a community by encouraging local govenments to exercise existing regulatory authority in a manner which supports the use of sustainable energy. It is a follow-up measure, designed to broaden the interest in sustainable energy generated by the Local Government Energy Management submeasure. The technologies and techniques of emphasis will vary area to area, but obvious candidates are those dealing with weatherization and passive solar. EES will develop model regulations, and guides to funding sustainable energy development. (Building codes fall under state jurisdiction and would not be covered by this submeasure.) Seminars and face-to-face counseling will be used to encourage local governments to use these models and guides. The first-year budget is $13,696.

The Technical Reference Center measure will enhance the ability of the public library system to serve as a decentralized source of technical reference material on sustainable energy. The target audience is the 89 public libraries in Montana, but the intent is to influence the activities of residential and small commercial consumers. The entire range of sustainable energy techniques and technologies will be covered, but the emphasis will be on individual building applications. The services to be provided include development of core collection and subject lists on sustainable energy literature, workshops for librarians on sustainable energy and use of sustainable energy reference tools, strengthening of the existing interlibrary loan network, and establishment of a library-based community energy information and referral network demonstration project. The latter is particularly significant, emphasizing as it does active outreach by the local library. The first-year budget is $59,136.

The Building and Finance measure will encourage lending institutions to emphasize the importance of energy saving as a criterion for evaluating loan applications. EES will train loan officials in sustainable energy techniques and technologies and facilitate the development of lending procedures which favor buildings using sustainable energy. Techniques and technologies for weatherization, passive solar and HVAC maintenance will be emphasized. Services to be provided include information dissemination, workshops and face-to-face counseling. The first-year budget is $34,783.

The Master Conserver program measure will advise residential consumers primarily on basic weatherization, furnace maintenance, and passive solar techniques. Volunteers will be trained as para-professional "master conservers", who will answer verbal questions from residents in the area. A primary aspect of this program is the training of volunteers who will return to the community to become part of an informal energy information network. Because of the difficulties inherent in establishing such a program in a large, sparsely-populated state, Master Conserver initially will be run on a one-year pilot basis in three counties. The first-year budget is $36,264. Later expansion of the program is anticipated.

The Program Adminstration function covers the operations of the central staff. Key activities here are management of the overall EES program, development of annual work plans for the second and third years of operation, development of operationally-based data collection systems, maintenance of a staff briefing book on the activities of the Energy Division and the Facility Siting Division, review of publications for technical accuracy, and preparation of a newsbulletin on public and private sustainable energy programs aimed at small energy users in Montana. The first-year budget is $35,726.

These four program measures taken together represent a gap-filling strategy. They are attempts to influence both the individual consumer and how individual decisions are made. EES has targeted audiences not currently being reached by state programs. These audiences were chosen on the basis of their role in energy decisions in Montana. The intent is to create a climate favorable to the development of sustainable energy in Montana. (The Master Conserver measure would be the one exception, working as it

will with individuals who could take advantage of this favorable climate.) In particular, the target audiences are ones which have access to extensive resources, far more than EES has available to it. For instance, a number of federal energy programs dealing with local governments have been proposed; with the assistance of EES, Montana local governments will be ideally positioned to take advantage of these programs.

These program measures, with the exception of the Energy and Community Planning submeasure, will begin at approximately the same time. A different organization will be delivering services under each of those measures, so this heavy scheduling should be feasible. Each program measure will operate independently at first; however, closer coordination between the measures is intended, as they develop. In particular, EES will lay the groundwork for state-wide sustainable energy "marketing." The Energy Division and the lending institutions will direct "prospects" to the libraries and the master conservers for energy information. The libraries and the master conservers will have information on locally available sources of financing and expertise on sustainable energy techniques and technologies. Through this network, the potential investor in sustainable energy devices will be directed to the sources which can best offer assistance.

The budgetary allocations reflect a conviction that local communities will be important in the transition to greater use of sustainable energy. The largest allocation goes to local governments, the second largest goes to public libraries, to acquaint small energy users with technical information on sustainable energy. The third largest allocation will go to lending institutions because the development of sustainable energy systems, just as with any other energy system, depends on access to capital. The smallest allocation goes to the development of informal energy information networks through a master conserver program; though the concept is critical, the difficulties of managing such a program are considerable.

According to the Program Planning Manual for EES, "For EES to be judged 'effective', EES clients must save more energy than non-clients and the cost of achieving these additional energy savings must be competitive with the cost of buying an equivalent amount of imported oil. In computing costs, both the program costs to the Government and the clients' conservation investment costs (amortized) are included". Thus, EES, working through its clients, is to be judged in terms of its net contribution to the national economy over the lifetime of the sustainable energy techniques and technologies employed as a result of EES activities.

Perhaps the most graphic manner of computing the cost-effectiveness is to determine how much money the economy will be saved by the installation of a sustainable energy device which replaces one barrel (bbl) of oil a year. EES-derived energy is to be compared with imported oil; world-price currently is over $25/bbl and spot-market prices ranged up to $50/bbl in early 1980. Sustainable energy devices often require large front-end investments; the value of the future energy purchased by that investment has to be discounted, since future commodities are worth less than commodities presently held. In a report on Alaskan natural gas transportation systems, the Department of Interior (1975) figured that the pretax real return on investment in the US between 1926 and 1973 was approximately 10 percent. Taking an admittedly conservative approach, this could be used as the discount rate. Thus, a sustainable energy device which saves 1 bbl/yr and lasts five years saves the economy $104 in present value terms; one which lasts ten years saves $169 and one which lasts twenty years saves $234. If the real cost of oil rises beyond $25/bbl, as it is likely to do over this period, then these figures are low. In general, these figures probably underestimate the contribution of sustainable energy devices to the economy.

The cost of each program measure can be converted to barrels of oil equivalent. EES primarily will encourage the adoption of sustainable energy techniques and technologies which have a long life; a conservative approach could assume those installations will last ten years. The discounted cost of a barrel of oil a year for ten years is $169. The EES program measures, after the proportionate share of program administration costs has been added, must produce at least the following amounts of oil equivalent to be cost-effective.

Program Measure	Bbl of oil equivalent
Local Government Energy Management	818
Energy and Community Planning	93
Technical Reference Center	399
Building and Finance	233
Master Conserver	171

Of course, these figures do not include the investment EES clients would have to make to obtain this sustainable energy; however, in spite of the conservative assumptions built into these estimates, the cost is so low that one can presume that any reasonable investment properly managed or installed, will be cost-effective. For instance, City of Helena in 1977-78 used the equivalent of 12,235 bbl of oil. If EES spends $138,000 on local governments and only convinces the City of Helena and one other city with the same size energy budget to spend $20,000 each on sus-

EXHIBIT 2
ENERGY DIVISION PROGRAMS

Program	Goal	Methods	Targets	Current Budget
State Energy Conservation Plan	To reduce Montana's energy consumption by 11.17×10^{12} BTUs (2×10^{6} bbl oil equivalent) from projected 1980 consumption.	Information dissemination, workshops and seminars, audits, face-to-face counseling.	All sectors statewide, with emphasis on residential, commercial, transportation, and state government.	$322,800
Emergency Building Temperature Restrictions Program	To inspect for compliance with Federal EBTR regulations.	Information dissemination, face-to-face counseling.	Commercial buildings, public and private.	50,010
Institutional Buildings Grants Program	To carry out DOE's Institutional Buildings Grants Program	Information dissemination, workshops, audits, retrofit.	Schools, hospitals, local government, and nursing homes for audits; schools and hospitals for retrofit.	4.4 million FY 79-82
Alternative Renewable Energy Sources	To reduce reliance on nonrenewable energy sources by use of renewable energy as rapidly as is dictated by the resources available and is consistent with an efficient energy system.	Grants for demonstration and commercialization projects, information dissemination, workshops and seminars.	All sectors. Emphasis has been on decentralized and small-scale applications.	900,000
Geothermal Commercialization	To promote the development of geothermal energy resources in Montana.	Information dissemination, workshops and seminars, face-to-face counseling.	Geothermal resource owners, large potential users of geothermal energy, general public.	72,000
Western SUN State Solar Office	To commercialize renewable energies in Montana	Information dissemination, workshops and seminars, face-to-face counseling, Solar Energy Information Data Base development.	All sectors	108,000

tainable energy devices, a total of $178,000 will have been spent on sustainable energy. That is equivalent to 1053 bbl of oil discounted over ten years. That 1053 bbl is equivalent to 4.3% of the total energy budget of the two cities. If the expenditure of $178,000 total could get at least two cities to reduce their energy consumption by at least 4.3%, proceeding with the program measure is a justifiable course of action. (Computation of actual cost-effectiveness must await completion of the program.)

Clients, of course, are not worried about cost-effectiveness in terms of the national economy, but about cost-effectiveness in terms of their own finances. EES has to recommend actions which the consumers will find reasonable.

SECTION 1.C. SUPPLEMENTING AND COORDINATING WITH OTHER CONSERVATION ACTIVITIES

A number of conservation activities in Montana operate with Federal funds or under Federal law, and are aimed at the same target audiences as is the Montana EES. Most of these are operated by the Energy Division, Department of Natural Resources and Conservation; this should facilitate coordination between programs.

The following federally funded programs are run by the Energy Division: State Energy Conservation Plan (SECP), which operates statewide in all sectors, but which concentrates on the residential, commercial, and transportation sectors, and on state government. The Institutional Building Grants Program provides matching funds to schools, hospitals, nursing homes, and local governments for building audits and in the case of the first two, for retrofit. The Emergency Building Temperature Restrictions Program - which has been incorporated in the SECP - assists commercial and government buildings in meeting federal temperature requirements. The Geothermal Project, part of the Rocky Mountain Regional Hydrothermal Commercialization Project, promotes the use of geothermal energy in Montana. The State Solar Office is funded by Western SUN to promote commercialization of all renewable energies in Montana. (See Exhibit 2 for goals and budgets of these programs.)

The major federally-mandated energy programs outside the Energy Division are located in the Department of Community Affairs (DCA). DCA is responsible for the Weatherization Assistance Program for Low Income Persons, Emergency Crisis Assistance Program (ECAP) and the Local Energy Emergency Preparedness Planning Project. The latter will support the formation of community-wide planning committees, primarily to deal with winter energy emergencies; the scope of these committees may be expanded to include more comprehensive planning. The Cooperative Extension Service has a home energy expert on its staff at Montana State University, and provides information services through the county extension agents. In addition to these state-run programs, Alternative Energy Resources Organization (AERO) will be operating an ACTION-funded program to complete energy assessments of ten counties; these will be used to determine the feasibility of implementing sustainable energy in those areas. In the near future, private utilities will be complying with the requirements of the Congressionally-mandated Residential Conservation Service.

A number of non-Federal programs also are relevant to EES. The most significant is the Alternative Renewable Energy Sources Program, which provides demonstration and commercialization grants for renewable energy; this program is funded out of the Montana coal severance tax and is administered by the Energy Division (see Exhibit 2). Most utilities and rural electric cooperatives already have, or plan to schedule, energy audit programs for residential customers. Montana Power Company, Pacific Power and Light Company, and Great Falls Gas Company all offer loans for home retrofit. Citizen groups about the state have information and education programs, which in the past have been aimed primarily at the residential sector and at schools. Finally, a number of schools participate in the Energy and Man's Environment (EME) Program.

Coordination between EES and related programs should be relatively straightforward. The development of annual plans for Energy Division programs is a coordinated effort, to guarantee that the program services mesh with each other. Weekly meetings of bureau chiefs formalize coordination between the different programs, while program managers meet daily whenever an issue arises. EES will be meeting with representatives from Cooperative Extension Service monthly, as part of coordination for the Master Conserver program. Finally, EES will be issuing a monthly newsbulletin on public and private efforts in sustainable energy education and outreach. The need for further coordination between groups should be identified readily.

The relationship between EES program measures and other programs reaching the same target audience is outlined in Exhibit 3.

EXHIBIT 3
EES RELATIONSHIP TO OTHER CONSERVATION ACTIVITIES

Target Audience	EES Program/ Geographic Area	Non-EES Program/ Geographic Area	Supplementary Relationship	Coordination Mechanism
1. Local Governments	Information, workshops and assistance in implementing energy management plans/ selected governments statewide.	Institutional Buildings Grants: audits/statewide.	EES will encourage local governments to request energy audits from IBGP and to act on the results of those audits.	EES and IBGP program managers will meet regularly to discuss participation of EES target governments in IBGP.
		Emergency Building Temperature Restrictions: information/statewide	EES will assist local governments in meeting EBTR requirements.	EES and EBTR program managers will meet regularly to discuss the degree to which EES target governments are in compliance with EBTR requirements.
2. Lending Institutions	Information, seminars, audits/statewide.	State Solar Office: seminars on renewable energy.	Presentation of Solar Office seminars will be coordinated with EES seminars.	EES and State Solar Office program managers will review status of the program measures on a monthly basis.
3. Homeowners	Information/statewide	Weatherization Assistance Program: information, audits, retrofit/low-income residents statewide.	EES will provide information to those homeowners wishing to weatherize their own homes and will refer interested people to the local HRDC.	News bulletin; regular meetings between County Extension Agent and local HRDC.

SECTION 1.D. OVERVIEW OF CERTAIN STATUTORY REQUIREMENTS

USE OF EXISTING ORGANIZATIONS

EES will use existing organizations to implement the State plan. EES will be administered by the Energy Division, Department of Natural Resources and Conservation. (See Section 3.) Services and technical support will be provided by the Energy Division, selected local governments, various components of the public library system, local citizen groups such as the Billings Community Energy Program (BiCEP), and the Cooperative Extension Service. (See Sections 2 and 7.) The Energy Division will respond to public suggestions and inquiries, publicize conservation services, and review publications for technical accuracy. Reviewers from the National Center for Appropriate Technology, the university system, appropriate state agencies and the private sector will be contracted to assist with the latter administrative function. (See Section 5.)

No new organizations will be created as a part of EES. EES will remain simply one of several programs run by the Energy Division. It will not be identified or publicized as an independent government agency. This may cause some difficulties for the national evaluation conducted by DOE, but is preferable to creating another layer of bureaucracy.

EES will rely heavily on State and local government agencies, in keeping with the emphasis of building a network to support sustainable energy development. Further, EES can use the proven lines of communication between State government and local government.

SMALL BUSINESS AND INFLUENCING ORGANIZATIONS

EES will be serving financial institutions, which are themselves small businesses, and which are major influences on the building industry. EES will provide information, hold seminars, conduct energy audits for lending institutions, and develop analyses relating loan risk to energy use. The intent is to increase the weight given sustainable energy considerations in decisions to issue loans for either commercial or residential buildings.

PROVIDING ENERGY AUDITS

EES will provide energy audits for up to 12 lending institutions. The main purpose of these audits is to demonstrate to lending institutions the cost and benefits of advocating sustainable energy techniques and technologies.

EES will not provide energy audits to the residential sector. Most consumers in the state already can receive energy audits from their local utilities. The establishment of the Residential Conservation Service in private utilities by the end of 1980, along with a similar program to be implemented by the rural electric cooperatives, will give all residential consumers access to a home energy audit service.

SECTION 2:
STATE PROGRAMS

SECTION 2.A. LOCAL GOVERNMENTS PROGRAM MEASURE

TARGET AUDIENCE

A variety of local governing bodies affect the lives of Montanans; of these, city and county governments are the most influential. Montana has 126 incorporated cities and towns, and 56 counties. Because the population of Montana is small, these governments are accessible to their constituents. In 1977, the largest city had a population of 72,000, and the largest county, 102,000. Based on 1977 census estimates, 66 cities and towns in Montana have a population of less than 1,000. Based on 1978 estimates, 20 of the counties have less than 5,000 people.

These governments collectively are an appropriate target audience for EES for the following reasons:

1. City and county governments can be major consumers of energy. The larger jurisdictions are likely to be among the top energy consumers in their area. Because of their continued dependence on increasingly insufficient property taxes, local government officials should be highly motivated to reduce government energy consumption.

2. City and county governments influence to some extent the energy consumption patterns of people within their jurisdictions. Possibly their most significant influence is the use of their authority to determine the nature of new construction and development.

3. City and county governments could have an increasingly important role in energy supply as the transition to a sustainable energy system is made. Congressional action to encourage local government energy programs is likely in the near future. Sustainable energy systems may, by their nature, be best administered at the local level. In any case, local governments, as an economic development strategy, could encourage sustainable energy firms to locate in the area, or, as a community development strategy, could finance residential conservation retrofits.

This audience has not been previously the target of any comprehensive energy program. Little along this line has been done by local governments in Montana on their own, although exceptions do exist. Not unexpectedly, little data on energy consumption by governments is available. MERDI (1977), on the basis of unspecified sources, credits all government, education and institutional services with 14% of the energy used in commercial buildings, or roughly 2% of total energy use in Montana. This underestimates the total amount of energy used by public authorities. By way of example, City of Helena's *FY78 Energy Consumption Report* shows its transportation operations accounting for 25% of the BTUs consumed by city government and street and traffic lights, for 15% (City of Helena, 1978).

The limited resources available to EES will require that delivery of services be staggered within the target audience. In general, provision of services to city governments will take precedence over provision to county governments, and areas of larger population, precedence over areas of smaller population. EES will target cities of over 1,000 population (N = 60) and fast-growing county areas, greater than 1,000 (N = 16). (See Exhibit 1, Section 1.A.) These priorities recognize the differing regulatory authority of city and county governments and the differing number of conservation opportunities associated with size, concentration, and rate of population growth. Where further refinement of priorities is needed, interest in sustainable energy will be used as a criterion. Suitability of the area for renewable energy development also will be used as a criterion when such development is the specific issue. The setting of priorities in the future will be influenced by the energy consumption data gathered under this program measure.

SERVICES

Local governments currently lack adequate technical expertise in the following categories:

Category 1. Establishing, operating, and evaluating an organization-wide energy management plan.

Category 2. Evaluating the energy implications of their regulatory actions.

Two program submeasures will be established to meet the needs in both of these categories: Local Government Energy Management, and Energy and Community Planning. EES will disseminate information, provide technical instruction, and provide face-to-face counseling. EES will assist the Institutional Grants Program by providing information on energy audits for government buildings, and will assist the Montana Renewable Energy Sources Program in targeting its practical demonstrations of renewable energy.

Provision of services in the first category has been assigned first priority; those in the second category, second priority. (See Exhibits 4 and 5.) This ordering gives EES the best chance of reducing the impact of immediate fuel shortages, recognizes the current concerns of local government officials and follows the order in which future Federal funds are likely to be available. In the first category, technologies and techniques for weatherization, passive solar, HVAC efficiency and vehicle fleet management will be of primary, though not exclusive, concern. Technologies and techniques to be emphasized in the second category must be determined on a case by case basis, though weatherization and passive solar are likely candidates in any event.

EXHIBIT 4
LOCAL GOVERNMENT ENERGY MANAGEMENT PROGRAM SUBMEASURE TIMELINES

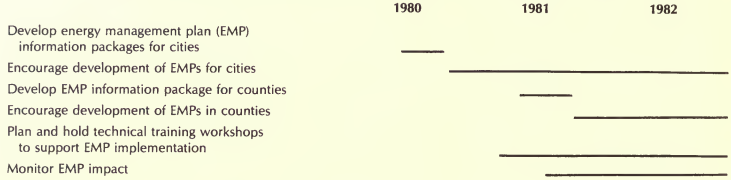
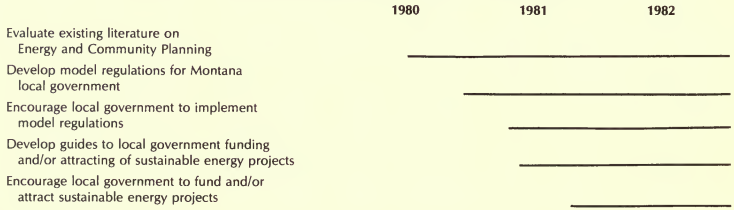

1980
1981
1982
Develop energy management plan (EMP) information packages for cities
Encourage development of EMPs for cities
Develop EMP information package for counties
Encourage development of EMPs in counties
Plan and hold technical training workshops to support EMP implementation
Monitor EMP impact

EXHIBIT 5
ENERGY AND COMMUNITY PLANNING PROGRAM SUBMEASURE TIMELINES


1980
1981
1982
Evaluate existing literature on Energy and Community Planning
Develop model regulations for Montana local government
Encourage local government to implement model regulations
Develop guides to local government funding and/or attracting of sustainable energy projects
Encourage local government to fund and/or attract sustainable energy projects

Services will be available state-wide, according to the priorities described above. Local governments outside the target audience will be invited to participate in EES-sponsored activities, such as workshops, where so doing would not adversely affect delivery of those services to the targeted governments.

Information Dissemination. An extensive literature on energy management and sustainable energy already exists; the main task in the Local Governments Energy Management submeasure will be packaging and delivering that literature in a form useful to local governments. Some material is available in the second category, but little of that is specific to Montana; checking developments in other parts of the country and preparing materials for Montana will be major tasks.

Technical Instruction. Top priority here is provision of instruction in the establishment, operation and evaluation of energy management plans. The first workshops would cover development of energy management plans and energy consumption profile preparation and updating. Subsequent workshops would be keyed to the plans developed by the local governments themselves. Workshops on boiler and furnace maintenance, on vehicle fleet management, and on procurement are likely to be requested. Technical instruction under the second submeasure will be based on the analyses developed in face-to-face counseling (see below).

Face-to-Face Counseling. The development of local government energy management plans will require on-site counseling and direct work with local planning and administrative officials.

The first step in Energy and Community Planning is development of model regulations which encourage the consideration of sustainable energy in the exercise of existing local authority, as with zoning, subdivision development, and community development funds. Building codes, falling under state and possibly Federal jurisdiction, would not be dealt with under this submeasure. On-site counseling and seminars will follow the development of these model regulations.

First year services. In the Local Government Energy Management submeasure, the first year focus will be on "large" cities (greater than 9,000 population, N = 10) and on "medium" cities (2,800-9,000 population, N = 18). The large cities will receive assistance in developing a complete energy management plan. Four will receive funding on a competitive grant basis to implement their plans. (See Technical Support.) Those cities implementing a plan will be provided on-site technical assistance on a monthly basis by an EES staff person. An energy consumption profile will be prepared for the medium cities. They will then be encouraged to develop their own energy management plans. A consultant will be hired to assist in face-to-face counseling.

The first year of the Energy and Community Planning submeasure will be devoted to the development of model regulations, and planning subsequent implementation of those models. A person familiar with local government regulations in Montana will be retained to assist in the development of these models.

TECHNICAL SUPPORT

EES will provide technical support for the Local Government Energy Management and the Energy and Community Planning submeasures. The Energy Division, of which EES is a part, is described in Section 3.

Technical support for the Local Government Energy Management submeasure includes assessment and preparation of information materials on sustainable energy, creation of training packages on energy consumption profile update and use, analysis of energy consumption profiles, creation of training materials on energy management plan development, and provision of publicity for local government energy planning activities. The need for further technical support, such as workshops and seminars, will be identified from local government energy management plans. This support may be contracted out to the university system or the private sector.

Selected local governments will be granted contracts to implement an energy management plan for their own operations, and thus provide much of their own technical support. These contracts will be awarded on a competitive basis. EES will assist with the development of these plans; accordingly, the criteria for judging the different proposals will include such considerations as amount of matching resources pledged, amount of citizen participation in the plan, amount of cooperation with other public agencies, etc. The specific criteria will be announced each time a request for proposal is made.

Technical support for the Energy and Community Planning submeasure will be used for development of model regulations, analysis of the benefits of implementing those models, preparation of guides for obtaining funds for sustainable energy development, and work with the Legislature, if requested.

First year technical support. EES will prepare guides to developing energy management plans and to using energy consumption profiles. EES will offer competitive grants to four of the ten large cities to assist implementation of a two-year energy management plan. EES would offer up to $20,000 for the first year and up to $10,000 for the second year. (After the grants terminate, the cities should be able to finance their energy management plans out of their energy savings, as the Great Falls school district has done with its plan.) Energy consumption profiles will be prepared upon request of the governments of the eighteen medium cities.

Preparation of model regulations on zoning, subdivision development and related matters will begin.

ORGANIZATIONAL RESPONSIBILITIES

The Energy Division will manage the Local Government Energy Management submeasure, in conjunction with selected local governments. It will manage the Energy and Community Planning submeasure on its own. The Energy Division is described in Section 3.A. Personnel requirements are listed in Section 2.E.

SECTION 2.B. TECHNICAL REFERENCE CENTER PROGRAM MEASURE

TARGET AUDIENCE

This program measure would meet the EES goal of increasing residential and commercial consumers' knowledge about selecting and implementing sustainable energy techniques and technologies by developing technical reference centers.

Neither the Energy Division nor any other public agency currently distributes technical information on sustainable energy to the general public; the cost is prohibitive, whether through publications or through face-to-face or phone consultations. Some federal and state brochures and pamphlets are widely available, but do not contain specific detailed information. Libraries could become technical references centers, providing the detailed information energy consumers want. This measure would build on existing library strengths and would explore new capabilities and services.

Public libraries in Montana are numerous, but relatively small; nonetheless, they provide a variety of services. Montana has 89 public libraries, and an additional 34 branch libraries or library stations. These are grouped in six federations. Seventy-eight of these 123 library locations are open on five or more days a week. However, over half of the 89 libraries have less than 10,000 titles in their collections, and over two-thirds provide less than 80 staff hours service per week. A strong interlibrary loan program overcomes the deficiencies commonly associated with small collections. All Montana libraries have access to search services and to a centralized reference service through the Montana State Library. Using these services, even the most remote library can reach nation-wide to fill a partron request. (Unless otherwise noted, statistics come from the *Montana Library Directory, 1979*.)

Public libraries serve a diverse clientele, but like most agencies, do not reach all small energy consumers. Although quantitative data is not available on user groups for Montana libraries as a whole, data has been collected on the Lewis and Clark Library in Helena (Holt, 1979). Highlights of that data show the following:

**As expected, students constitute the largest occupational group (50% of registered borrowers).*

**Less expected is the finding that the percentages of male and female borrowers are proportionate to the percentage of males and females in the population.*

**Almost 35% of the registered borrowers are in the 25-54 year old category, the ages at which people are most likely to buy or retrofit a house. These borrowers constitute 66% of those in the service area who are 25-38 years old, and 25% of those who are 39-54 years old.*

Though library service is tilted somewhat towards younger, less financially able clientele, libraries do serve a large percentage of the adult population on a regular basis. Extrapolation of Lewis and Clark Library service data suggests libraries could be reaching over 100,000 of those Montanans between 25-54 years of age.

Montana libraries are seeking to broaden their base and to take a more active role in information dissemination. With energy presently attracting considerable attention, libraries are interested in working with programs addressing this topic.

SERVICES

Services under this program measure would be provided to libraries with the intention of influencing the behavior of residential and commercial energy consumers. This would be done by improving consumer access to information materials on substainable energy, materials available from local libraries both on loan and on a free basis. The range of sustainable energy techniques and technologies will be covered, but the emphasis will be on individual building applications. Provision of services will be weighted to favor libraries in areas of large or fast-growing population, those areas targeted under the Local Governments Program Measure. (See Exhibit 1, Section 1.A)

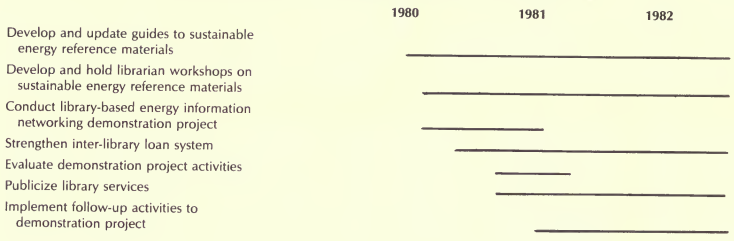
Services to be provided include information dissemination, workshops for librarians, and a project demonstrating the development of a community energy information and referral network. Services in the first two categories fall within the traditional areas of library activities. Services will be provided according to the schedule shown in Exhibit 6.

Information Dissemination. Core collection and subject lists on sustainable energy literature will be developed. These will be prepared for different-sized library budgets and different renewable resource bases. (A proposed book purchase program funded by Montana's Alternative Renewable Energy Sources Program will be based on these lists.)

The existing interlibrary loan system, as it concerns energy, will be strengthened. EES will provide partial funding for use of DOE's RECON service. Efforts will be made to involve special libraries and other energy information resource centers in the existing interlibrary loan network.

Libraries will be provided quantities of free state and Federal publications. Distribution and display systems will be developed to support this service.

EXHIBIT 6
TECHNICAL REFERENCE CENTER PROGRAM MEASURE TIMELINES


1980
1981
1982
Develop and update guides to sustainable energy reference materials
Develop and hold librarian workshops on sustainable energy reference materials
Conduct library-based energy information networking demonstration project
Strengthen inter-library loan system
Evaluate demonstration project activities
Publicize library services
Implement follow-up activities to demonstration project

Publicity promoting libraries as technical reference centers on energy will be provided.

Instruction. Librarians will be provided, at regular intervals, with sessions on the use of sustainable energy information materials, on accessing sustainable energy data base systems, and on sustainable energy techniques and technologies. These will be delivered in cooperation with the continuing in-service training programs of the six federations, or through special workshops presented at federation headquarters to all of their participating libraries.

Demonstration Project. This project would explore the development of new library capabilities and services. This project is unique—it will demonstrate procedure rather than equipment. Libraries could become a driving force in energy information transfer. Some libraries have explored this possibility in a tentative way. The demonstration project, located at one library, would permit a comprehensive investigation of this possibility.

The demonstration library would develop a community energy information and referral network. To do so, the library could coordinate energy education activities with schools, provide information support for local governments, cooperate with local groups distributing energy information, such as the utilities, AERO, Cooperative Extension Service and the Human Resources Development Councils (HRDC's), and facilitate the development of guides to local energy information sources.

The library would actively market technical energy reference services to library patrons. Libraries traditionally have done little to promote specific topics on a continuing basis. An important marketing task will be providing follow-up to inquiries received by the Energy Division (see Section 5.A). Another possibility is the generation of topical mailing lists based on patron interest as indicated by the checkout of materials on a specific subject. Still another is the sponsoring of seminars on energy topics. Finally, the library would monitor the results of this networking, and would prepare materials or workshops on this subject for other libraries. Relating changes in behavior to use of library materials will be difficult, but should be attempted. (See Section 6.)

First year services. All services will begin for libraries state-wide and will operate on a continuing basis.

Workshops on sustainable energy techniques and technologies and on providing energy reference services will be held in all six federations.

A twelve-month demonstration project will be initiated at the Lewis and Clark Library in Helena. Development of a community energy information and referral network will start and referral and monitoring services will be put into operation.

TECHNICAL SUPPORT

The Technical Reference Center Program Measure will need extensive technical support, in particular, expertise in library sciences. Most of the materials to be provided through Information Dissemination service must be assembled or prepared. Material must be prepared for the librarian training sessions. EES will contract with public libraries to provide this technical support in library sciences. EES will provide those libraries with training on sustainable energy techniques and technologies, obtain state and federal publications for general distribution, and assist in state-wide publicity (see Section 7).

First year technical support. EES will contract with Lewis and Clark Library to provide one librarian to support the services which will be delivered. Montana State Library will advise in the development of the Technical Reference Center measure, to assure that it is consistent with the state library development plan. EES will provide orientation and support to the librarian at Lewis and Clark Library, will assist in training librarians on sustainable energy technologies and techniques, will obtain state and federal publications for distribution, and will assist with state-wide publicity.

ORGANIZATIONAL RESPONSIBILITIES

Lewis and Clark Library in Helena will be responsible for delivering services of the Technical Reference Center Program Measure; the Montana State Library will provide advice on the program measure direction. A review of the demonstration project at the end of twelve months of operation could indicate a need to expand the program measure to other areas, or it could justify reduction of the program to routine information services. Additional services, if needed, would be added at that time.

The selection of Lewis and Clark Library was based on four criteria. First, it is a local library and thus in regular contact with the ultimate target audience for EES. Over 6500 persons ages 25-54 currently are registered patrons. Second, it has a history of innovative activity in energy outreach, having worked with the New Western Energy Show, the Helena Energy Task Force, and the AERO Energy Options series. Also, the city commission has designated the library the Local Energy Resource Information Center, and the city and county commissions have designated it the Local Government Information Center. Third, since the library is in Helena, Energy Division staff can easily provide technical support and assistance in outreach efforts. Fourth, Lewis and Clark Library is one of the two libraries with the automation capabilities necessary to monitor patron use. (The Parmly Billings Library automated in summer, 1979, and is in a logical area for expansion of the demonstration project.)

The Lewis and Clark Library serves the cities and the unincorporated areas of Lewis and Clark county, as well as portions of adjoining Jefferson County. The library has 57,000 titles in its collection and an annual circulation of 245,000. It is open 63 hours a week, with 18.25 staff positions, and operates on an annual budget of $390,145. One and one quarter additional positions will be necessary to carry out this program.

The Montana State Library, as the coordinating agency for the Montana library system, is in regular communication with the six library federations. It would advise in the preparation of the training sessions and in the overall direction of the demonstration project.

SECTION 2.C. BUILDING AND FINANCE PROGRAM MEASURE

TARGET AUDIENCE

Lending institutions are vital to the building industry. They provide the funds for new construction, for home improvements, and for major commercial retrofits. Market demand is shaped in part by consumer perception of lending institution attitudes towards different types of construction. For a variety of reasons, an increased willingness of lenders to provide money for energy-efficient buildings or a reluctance to provide money for energy-inefficient buildings would affect the amount of energy used by buildings in Montana. Energy is unlikely to become the major criterion on which loans are disbursed, but its importance will rise as fuel costs climb.

Lending institutions were targeted because of their influence on builders and on building owners. Therefore, among lending institutions, priority clients will be those who handle large numbers of building-related loans, both residential and commercial. The total number of banks in the state is 159; the number of savings and loan associations is 31. These figures do not include branch offices (US Bureau of the Census, 1979).

Services provided lending institutions might also be of use to related audiences, such as realtors and appraisers. These audiences will be invited to participate in EES-sponsored activities, such as seminars, where so doing would not adversely affect delivery of services to the targeted audience.

Lending institutions were targeted with the awareness that they do not unilaterally set policy for the building industry. This program measure will be initiated on a geographic basis, with the expection that it will be expanded to cover lending institutions across the state. Billings was selected as a pilot area because it is the area of greatest growth in the state and therefore offers the greatest potential for savings. Also, a broad-based citizens energy committee, Billings Community Energy Program (BiCEP), embracing the financial community and various sectors of the building industry, already is functioning. If the program proves workable, it will be expanded to other areas across the state (see Exhibit 1, Section 1.A). Missoula-Hamilton and the Flathead Valley, being areas of relatively heavy growth, are probable first targets.

SERVICES

Provision of services under this measure has two objectives, of which the first is the most essential: 1) to increase the importance of energy considerations in the evaluation of loan applications, and 2) to increase loan applicant awareness of sustainable energy techniques and technologies. Lending institutions and loan applicants agree on the necessity of keeping fuel bills low. Fuel costs are a substantial factor in home and business obligations. The need for lending officials to be conversant on energy matters is obvious and should be met. Likewise, consumers should be provided with energy information. For lending institutions to provide this information is good public relations; however, its primary justification is how much it lowers the risk of extending a loan.

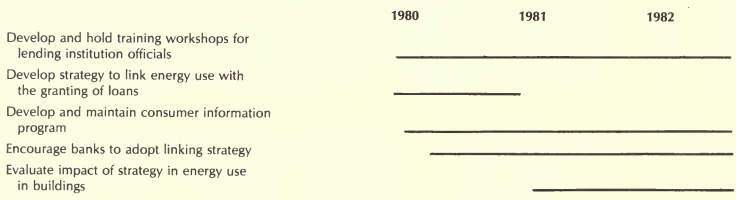
Since the purpose of this program measure is to influence construction and retrofit practices, the focus initially will be in low-cost, thoroughly proven techniques and technologies. In most instances, this will include site design, weatherization, HVAC control systems and passive solar systems. This list should lengthen in the course of the EES program as lending officials themselves redefine the conventional wisdom on what techniques and technologies are proven.

For a program of this sort to be successful, lending institutions must have a significant part in its design and direction. Accordingly, the first step will be to assemble a working group to design and initiate the delivery of specific services (see Exhibit 7). Services likely to be offered can be described in advance:

Information Dissemination. Lending institutions will need instructional material for their staffs, and sustainable energy literature for distribution to their customers. Much material of this nature already has been published, but is not at present available to lending institutions.

Instruction. Staff of lending institutions will need seminars on sustainable energy techniques and technologies if they are to evaluate the energy aspects of any building loan.

EXHIBIT 7
BUILDING AND FINANCE PROGRAM MEASURES TIMELINES


1980
1981
1982
Develop and hold training workshops for lending institution officials
Develop strategy to link energy use with the granting of loans
Develop and maintain consumer information program
Encourage banks to adopt linking strategy
Evaluate impact of strategy in energy use in buildings

Face-to-Face Counseling. Included in this category of service is assistance with analysis and feasibility studies. Financial institutions need detailed information linking market value, rental value, and loan failure rate to the energy costs of the building or the operation. EES studies on these topics would be of use to those institutions in setting loan policies.

Energy Audit. Energy audits of lending institutions would demonstrate to lending institution officials the merits of energy conservation. With this practical base, loan officials could better advise their customers, in particular their commercial accounts. These would be comprehensive technical audits, similar to the audits provided through the Technical Assistance Phase of the Institutional Buildings Grants Program. They would be conducted by a professional auditor, at a cost of $2-5,000 per audit. They would include a list of suggested retrofits, along with cost and estimated payback period. Twelve audits will be conducted at different sites across the state.

First year services. A program for lending institutions will be implemented in the Billings area. In-service training for loan officials will be completed and consumer information services established, in accordance with the program design. Two or three energy audits of Billings financial institutions will be conducted. (There are ten banks, two savings and loans associations, and one major credit union in Billings.) Means for continuing program development and dialogue between the sectors of the building industry will be identified and implemented as appropriate.

TECHNICAL SUPPORT

During the pilot phase, technical support will be provided primarily by BiCEP itself. The point of using BiCEP is to tap the construction and financial expertise of that committee. BiCEP will need staff support to prepare documents, to carry out any necessary research, and to prepare or assemble instructional materials for lending institution officials; BiCEP also will need training in sustainable energy techniques and technologies.

Energy audits will be contracted by EES to local organizations in the private sector when possible. The limited number of audits would not warrant inclusion of audit personnel at the central EES office. Use of local firms should increase interest in this program measure in the local building industry.

The EES office will provide bulk quantities of information materials on sustainable energy, training assistance in sustainable energy techniques and technologies, and state-wide publicity (see section 7.A). The distribution of technical support after the pilot phase will depend on the outcome of that phase.

First year technical support. BiCEP will develop a training program in sustainable energy for loan officials. Workshops on sustainable energy will be presented for BiCEP Building and Finance committee members; Montanans expert in various areas of sustainable energy will be contracted for individual presentations. A procedure for including energy considerations in assessing loans will be developed. A summary of literature on energy and loan risk will be prepared. A program for consumer information will be developed.

ORGANIZATIONAL RESPONSIBILITIES

BiCEP will be responsible for implementing the pilot phase of this program. BiCEP is a unique organization in Montana, a broad-based voluntary citizens' group with a wide range of technical and professional skills from one geographic area. BiCEP is a non-profit organization with 60 members; the bulk of its resources are donated by the members. Use of a group such as BiCEP should help determine that maximum influence on the building industry can be applied through lending institutions. BiCEP will require one-half position for staff support for eight months to carry out this program.

The Montana Banker's Association, the Montana Independent Bankers and the Montana Savings and Loan League will be invited to comment on the development of this program measure.

SECTION 2.D. MASTER CONSERVER PROGRAM MEASURE

TARGET AUDIENCE

Residential consumers were to be a key target audience for the Energy Extension Service. The level of funding makes widespread provision of direct expert services unfeasible, but no less desirable. To supplement the EES strategy of focusing on centers of influence, EES will train local volunteers to become master conservers. This program measure would be modeled after the Cooperative Extension Service's Master Gardener program.

The rationale for a Master Conserver program is based on the assumption that many residential consumers already have a general knowledge of conservation techniques. (Montana Power Company, in the course of its home audit program, has found this to be true). They can recognize that their houses are cold or drafty, and that some sort of insulation could ease the problem. What they lack is a trustworthy person to "walk" them through their problem and provide them with sufficient knowledge to hire a contractor or to carry out basic home repairs.

The intent of this argument is not to denigrate expert advice. It recognizes that people regularly make satisfactory decisions on major purchases such as cars and houses without an expert at their sides, giving advice. One goal of EES should be to develop a folk knowledge of energy conservation, so people will feel comfortable about setting priorities and taking action even without detailed analyses of their problems.

The residential sector consumes roughly 15% of the energy used in Montana. Of this, 88% is used for space conditioning and heating water (MERDI, 1977). Savings of 10-30% can be presumed to be possible in most houses, using low to moderate cost building shell and furnace retrofit and maintenance techniques such as a para-professional could recommend. Owner-occupants are more apt to take action than renters, so they are more likely to use a master conserver service. There were an estimated 278,000 housing units in Montana in 1978, with an estimated 191,820 owner-occupied units, roughly 69% of the total (Bureau of Business and Economic Research 1979). Thus, a statewide para-professional advisory service serving owner-occupied homes exclusively has the potential for encouraging the saving of at least 0.9-.27% of the total energy consumed in Montana.

EES will begin with a pilot phase in three counties, Cascade, Flathead, and Missoula (see Exhibit 1, Section 1.A). These are counties with one large urban concentration and an extensive rural area. People from rural areas, who often lack ready access to information sources, are expected to make heavy use of this service. Missoula and Flathead counties recently have had the second and third largest increases in population in the state; Cascade is likely to be heavily impacted by energy developments in the near future. Most important, these counties have the necessary support from County Extension agents and volunteer leaders.

The Master Conserver pilot phase potentially could reach 44,500 owner-occupied living units, roughly 16% of the total number of housing units in the state. Cascade County in 1978 had an estimated 27,000 living units, 17,500 of them owner-occupied. Flathead County had an estimated 13,900 units, 11,000 owner-occupied. Missoula County had an estimated 25,000 units, 16,000 owner-occupied. In 1970, the percentage of owner-occupied living units located in rural areas was Cascade County - 17%, Flathead County - 58%, and Missoula County - 27%. (These 1970 figures should be treated as approximations, since patterns of ownership, of occupancy, and of urbanization undoubtedly have changed since the 1970 census.)

At the end of 12 months, the Master Conserver program measure will be assessed and future action planned accordingly (see Exhibit 8). The experience of Master Conserver programs in the EES pilot states is encouraging, but the small population base and the distances involved make establishment of a Master Conserver program in Montana somewhat problematical.

SERVICES

This program measure will concentrate on information dissemination. Trained volunteers - "Master Conservers" - will provide advice on home weatherization techniques to residential consumers who call in. The emphasis will be on low to moderate cost weatherization, passive solar techniques, and heating plant maintenance procedures. Where appropriate, the master conservers will assist at energy displays and exhibits which would reach residential consumers.

First-year services. Master Conservers will operate in Cascade, Flathead and Missoula counties.

TECHNICAL SUPPORT

The master conservers will need training in conservation techniques, a guide to energy conservation questions, and backup reference service to assist them on difficult questions.

This technical support will be provided by the Cooperative Extension Service, since the program will be run through the county extension agents. The Energy Division will provide assistance in all three categories (see Section 7).

First-year technical support. A training program for volunteers will be developed and implemented. A guide to energy conservation will be prepared. A backup reference service to the master conservers will be provided.

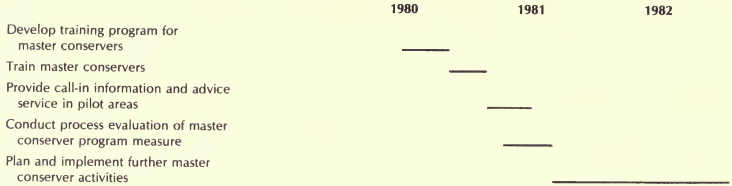
ORGANIZATIONAL RESPONSIBILITIES

The Master Conserver Program Measure will be managed by the Cooperative Extension Service. The Energy Division will provide assistance in technical support.

The Cooperative Extension Service is part of the Montana State University in Bozeman. It has 84 county agents operating in 53 of the 56 counties. A professional state staff of 54 is based primarily at the university; its current budget is $4,773,916.

The Cooperative Extension Service will be responsible for recruiting and supervising the volunteers, organizing and conducting the training sessions, providing technical backup to the volunteers, providing working space, and producing publicity. No additional personnel will be required.

EXHIBIT 8
MASTER CONSERVER PROGRAM MEASURE TIMELINES


1980
1981
1982
Develop training program for master conservers
Train master conservers
Provide call-in information and advice service in pilot areas
Conduct process evaluation of master conserver program measure
Plan and implement further master conserver activities

The Energy Division will assist in conducting the training sessions, in providing technical backup, and in preparing reference and handout materials for the master conservers.

SECTION 2.E. PROGRAM ADMINISTRATION FUNCTION

EES program administration activities are described in a number of places throughout the program plan, and are summarized in this section; the staffing requirement for EES is detailed, and aspects of the planning process not covered elsewhere are discussed here.

Under the Program Administration Function, EES will prepare quarterly reports for DOE, annual plans for the second and third years, a staff briefing book on Energy Division and Facility Siting Division activities (Section 5.A), a newsbulletin on public and private sustainable energy programs aimed at small energy users (Section 5.C), review publications for technical accuracy (Section 5.C), and ensure the timely implementation of the EES program plan (Section 8).

The Energy Division will add 4 staff positions to implement the EES program. These new positions will be for a local government specialist (LGS), a building technologies specialist (BTS), an outreach and technical support person (TS), and a secretary. The existing program manager (PM) position and 0.1 of the Energy Division administrator's time complete the staff requirements for EES. Program responsibilities, as a fraction of positions, are shown in table 1.

TABLE 1. PROGRAM RESPONSIBILITIES

	LGEM	E&CM	TRC	B&F	MC	Admin
PM	.1	.05	.2	.15	.1	.4
LGS	.84	.16				
BTS	.44	.04	.05	.40	.07	
TS			.15	.15	.4	.3
Sec	.1	.05	.05	.1	.05	.65

As part of the planning process, EES will encourage the development of operationally based data collection systems. Such systems would generate data in a format adaptable to the EES planning process, while minimizing the inconvenience to energy consumers and suppliers.

Overcoming the lack of data was one of the greatest difficulties in planning EES. Most of the available data is on fuel supply; little disaggregated data is available on energy demand. Much of the data needed for planning purposes already is generated by the private sector as part of its own operations. People possessing this information are reluctant to pass it on if for no other reason than that doing so takes time from their business. If no extra work were required, some of the objection to providing EES with the data would be dissipated. Further, data formatted in a manner usable to EES might convince consumers they should adopt sustainable energy techniques and technologies on their own without intervention from EES.

As an example, EES could encourage utilities to incorporate an energy-montoring system in their billings. At a minimum, utilities could include a fuel units/Degree Day statement on the monthly bills. Consumers—residential consumers in particular—could use this index to determine changes in the efficiency of their buildings. If the metering corresponded to logical building units and the customer provided the information on the amount of conditioned space in the building, a BTU/square foot/Degree Day could be computed. This index permits comparison of the relative efficiency of buildings of a similar type. The aggregated data would be of use to EES, other State agencies, and the utilities for planning and evaluation purposes, and would at the same time assist the individual consumer to manage energy use more wisely. Such an addition to the billing system could not be implemented easily or immediately, but once automated, that system could be run at minimal cost.

First-year activitres. EES will work with at least one utility to begin incorporation of an energy-monitoring system into the routine billing procedures.

SECTION 3:
EES ADMINISTERING ORGANIZATION

SECTION 3.A. ADMINISTERING ORGANIZATION

The Energy Division, Department of Natural Resources and Conservation, will administer the EES program. The Energy Division is the lead state agency on sustainable energy, and has been since the State began programs in this area in 1976.

The Energy Division consists of four bureaus: Conservation, Renewable Energy, Planning and Analysis, and Fuel Assistance. The Conservation Bureau, with 8.5 staff positions, manages the State Energy Conservation Plan (SECP), the Emergency Building Temperature Restrictions Program, and the Institutional Buildings Grants Program; EES will be located in this bureau. The Renewable Energy Bureau, with 12.5 staff persons, manages the Montana Alternative Renewable Energy Sources Program, Montana operations of the Rocky Mountain Regional Hydrothermal Commercialization Project and the Montana State Solar office of Western SUN. The Planning and Analysis Bureau, with 9 staff positions, conducts need and alternatives analysis under the Montana Major Facilities Siting Act, energy supply and demand analysis, and policy analysis and development; it also coordinates program planning for the Division. The Fuel Assistance Bureau, with 4.5 staff positions, manages the fuel set-aside program for the State. Division administration employs two persons.

The FY80 budget for the Energy Division is $2.5 million.

SECTION 3.B. COORDINATION PROCEDURES

Different coordination procedures will be developed for each program measure. Contacts with all contractors will be recorded in individual communications logs to be maintained by each EES staff person. EES will mail all contractors current information about changes in DOE or state requirements.

The relation of EES to state government and to its contractors is presented in Exhibit 9.

LOCAL GOVERNMENTS

Coordination procedures will be specified in the individual contracts. In general, each local government participating in the program will be assigned an EES staff person, who will meet with the relevant local agencies on a quarterly basis, or while providing technical assistance. Each local government will be asked to designate a specific EES contact person.

The Grant Management Summary Report (GMSR) form will be used as part of the coordination procedures. Local governments receiving implementation grants will provide information sufficient to prepare a GMSR on a quarterly basis. EES will prepare GMSRs on other phases of this program measure, and related reports (evaluation activity, barriers to energy conservation, and technical assistance) on all phases of this program measure.

TECHNICAL REFERENCE CENTER

The sustainable energy librarian from Lewis and Clark Library, a representative from the State Library and the EES staff person in charge of the Library Program measure will meet as a committee once a month to evaluate progress on the program measure. The Lewis and Clark Library will prepare the quarterly performance reports under the direction of EES.

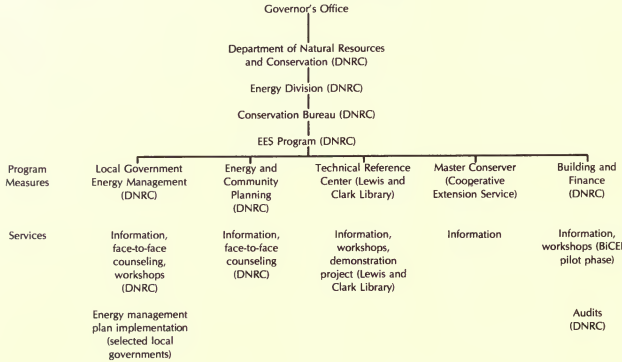
BUILDING AND FINANCE

During the pilot phase of this program measure, an EES staff person will meet with BiCEP as necessary to provide technical assistance and to assess the progress to date. Given the exploratory nature of this phase, these meetings should be supplemented by regular phone communication. BiCEP will provide EES with information necessary to complete GMSRs and related reports.

EES will be in charge of maintaining liaison with statewide financial and building industry associations.

Energy auditors employed under this program measure will be hired by EES. Financial institutions receiving energy audits will agree to provide EES with audit results and energy consumption data for two years following the audit.

EXHIBIT 9
EES ORGANIZATION CHART


Governor's Office
Department of Natural Resources and Conservation (DNRC)
Energy Division (DNRC)
Conservation Bureau (DNRC)
EES Program (DNRC)
Program Measures
Local Government Energy Management (DNRC)
Energy and Community Planning (DNRC)
Technical Reference Center (Lewis and Clark Library)
Master Conserver (Cooperative Extension Service)
Building and Finance (DNRC)
Services
Information, face-to-face counseling, workshops (DNRC)
Information, face-to-face counseling (DNRC)
Information, workshops, demonstration project (Lewis and Clark Library)
Information
Information, workshops (BiCEP, pilot phase)
Energy management plan implementation (selected local governments)
Audits (DNRC)

The state-wide program will be managed by EES. If another group, such as a state financial association, is retained to deliver services, EES staff will meet with that group as needed in the pilot phase.

MASTER CONSERVER

Representatives from the EES and the Cooperative Extension Service (CES) will meet quarterly to evaluate the progress of field work in this program measure. CES will prepare GMSRs, evaluation activity reports, and technical assistance reports; CES reporting procedures could be used instead of the evaluation activity report. EES will prepare reports on barriers to energy conservation on the basis of information provided by CES.

SECTION 3.C. **RELATIONSHIP TO THE EES GRANTEE**

The Energy Division, Department of Natural Resources and Conservation, will be the administering organization as well as the grantee.

SECTION 4:
BARRIERS TO ENERGY CONSERVATION

This section describes the methods and procedures used to identify barriers to energy conservation from target audience comments, to report those barriers to state organizations which could diminish the barriers, and to report back the results of such communication to the target audience. DOE defines "barriers to energy conservation" as "problems or obstacles identified **by** small energy users which prevent or hinder them from adopting conservation techniques and technologies."

Barriers to energy conservation will be treated differently according to the different audiences involved. In general, field reports on barriers will be evaluated each month and priorities for action set by the EES staff. The EES staff person working with the specific target audience will meet with those organizations which could diminish the barrier; these meetings will be on an ad hoc basis or as a working group, according to the nature of the barrier at hand. Results of these meetings always will be reported back directly to the target audience; the mass media will be used in certain instances as well.

LOCAL GOVERNMENTS

EES staff persons will be in regular contact with officials of those local governments receiving assistance. Barriers should be reported to EES as they are encountered. Officials of other local governments will be invited to contact EES whenever they encounter a barrier. EES expects to work closely with the Department of Community Affairs, the League of Cities and Towns, and the Association of Counties. Results of these meetings will be reported directly to the local governments by EES, as well as through their associations.

TECHNICAL REFERENCE CENTER

The sustainable energy librarian at the demonstration project will be responsible for noting barriers described by the libraries with which EES works. The librarian will report these barriers at the monthly committee meetings. The committee will determine the priorities for dealing with the barriers. As appropriate, State Library or EES personnel will use established channels to discuss these barriers with the relevant organizations. The results of these discussions will be evaluated by the committee and be reported back to the public libraries.

The libraries could become points for collecting information from the public on their individual perceptions of barriers to conservation. Library patrons could be invited to complete questionnaires at the book checkout desk, since this is a natural point of delay. This possibility will be investigated as part of the demonstration project.

BUILDING AND FINANCE

A major purpose of the initial phase of this program measure is to identify lending institution-related barriers to implementing sustainable energy techniques and technologies in buildings. BiCEP will report on identified barriers during the monthly meetings with EES; priorities for action on the state level will be set by EES. As with barriers identified by local government, EES staff persons then will meet with the relevant organization(s) either on an ad hoc or on a continuing basis. EES will report results of these meetings to BiCEP, and to state lending institution associations.

MASTER CONSERVER

The master conservers will note any barriers reported to them by those people calling in requests for advice. No special attempt will be made to solicit reports of barriers. The county agent will summarize, on a monthly basis, reports of barriers, indicating whether or not each barrier is specific to the county. These reports will be collected by the program measure manager at the Cooperative Extension Service and passed on to EES. These reports will be dealt with in the standard manner. Use of the mass media to report back to the target audience may be particularly appropriate in these instances.

SECTION 5:
ADMINISTRATIVE PROCEDURES

SECTION 5.A. RESPONDING TO PUBLIC SUGGESTIONS AND INQUIRIES

Montanans identify the Energy Division as the state agency responsible for all energy matters. When they wish energy-related services, they are not interested, and have no reason to be interested, in bureaucratic distinctions between different programs nor in the fact that the Energy Division can only cover so many areas with the resources available. Their inquiries can be an opportunity for the Energy Division to deliver services, but those inquiries can just as easily cause a disruption of service delivery. The problem for the Energy Division is to meet the legitimate inquiries of Montanans while carrying out priority programs in an effective manner.

EES will develop a system to improve the manner in which the Energy Division handles inquiries from the general public. The key elements are an internal briefing book and the public libraries. Methods for answering inquiries from the EES target audiences are covered in the appropriate program measure.

The Energy Division, and the related Facility Siting Division, are too large for any one staff person to have a detailed knowledge of all division activities. A briefing book updated on a regular basis could provide each staff person with a summary of state activities in each program area. This information could be used to direct public inquiries to those staff persons who can best answer the question. If the situation requiries an immediate response, the staff person will be able to give at least a brief answer which is in accordance with Department policy.

Some inquiries will fall outside Energy Division program areas or would warrant a more detailed response than can readily be provided. The public libraries could provide the in-depth response in these instances. The Energy Division staff person would answer the inquiry as best possible. A contact sheet on the inquiry would be filled out, indicating the area of interest of the client. A copy of the contact sheet would be sent to the major public library nearest the client. The library would then mail the client a list of its holdings in the subject indicated by the client's inquiry. Suggestions for action could also be recorded on this contact sheet and then routed to the appropriate program in the Energy Division for use in future planning.

The operation of such a referral system requiries the public libraries to have an adequate supply of subject lists on hand. These will be developed as part of the Technical Reference Center Measure (Section 2.B).

SECTION 5.B. PUBLICIZING CONSERVATION SERVICES

EES will publicize conservation services by preparing a monthly sustainable energy newsbulletin for dissemination to all organizations providing energy information. The newsbulletin would cover activities in the public and the private sector. The newsbulletin would carry no stories but simply would list available services and refer the organization to a contact person. The organizations would then inform their members or clients about the service; this bulletin would supplement existing newsletters and media coverage of energy services. Information would be gathered by Energy Division staff making monthly contacts with relevant organizations, such as Cooperative Extension Service, AERO, HRDC's, utilities, and state agencies. Organizations would be encouraged to send EES the pertinent information in return for receiving the newsbulletin.

This newsbulletin will be provided in addition to information disseminated through the various program measures. It will be distributed to representatives of all the small energy consumers.

SECTION 5.C. REVIEWING PUBLICATIONS FOR TECHNICAL ACCURACY

EES should guarantee the technical accuracy of all publications it disseminates. Budgetary constraints dictate that as many publications as possible be reviewed in-house. The following procedures describe the review process.

Internal review: All publications disseminated by EES will be reviewed by Energy Division staff. Publications on topics outside areas of staff expertise will be evaluated on the basis of author, publishing house, completeness, and

clarity of presentation. Material published by EES will also go through standard Department of Natural Resources and Conservation review.

External review: If on the basis of internal review, further review is thought to be necessary, the publication will be sent out for external review. Reviewers will be drawn from National Center for Appropriate Technology, the university system, appropriate state agencies, and the private sector. Reviewers will be selected on the basis of their knowledge on the subject under consideration. Reviewers will be paid on a per piece basis, up to $75 per review. Any needed revisions will be paid for from funds of the appropriate program measure.

EES, as a program within the Department of Natural Resources and Conservation, will be responsible for the final determination of technical accuracy.

SECTION 6:
INDEPENDENT EVALUATION

The Energy Division, as part of a larger effort in the Department of Natural Resources and Conservation, has begun to formalize impact evaluation of its programs; EES will attempt to evaluate the impact of its program measures.

EES recommends that the Local Government Energy Management Submeasure and the Technical Reference Center Measure be the candidates for DOE's national evaluation. EES will conduct independent impact evaluation of these programs, as well as of the Building and Finance Program Measure. EES will conduct process evaluation of the Master Conserver Program Measure. The Energy and Community Planning Submeasure will be subject only to standard management monitoring procedures.

Local Government Energy Management Submeasure: Those local governments participating in this submeasure will gather data for their own use in managing their energy consumption. EES will be able to use these energy data reports to assess the impact of its activities on local government use of sustainable energy. No additional paperwork will be necessary. Savings will be estimated on the basis of actions taken by the local governments. Monitoring of energy consumption of the local governments will continue to determine the actual impact of those actions. This impact probably will not be measurable until the second year.

Technical Reference Center Program Measure: Evaluation of this measure will concentrate on the demonstration project at Lewis and Clark Library. It will assess the effect of EES activities on patron use of information materials on sustainable energy techniques and technologies (process measurement) and the effect of EES activities on the amount of non-renewable energy used for residential space conditioning in the service area of Lewis and Clark Library (impact measurement). EES presumes that the lead role in evaluating the impact on EES on library service in Montana will be taken by DOE.

Process evaluation in this case involves determining the percentage of library patrons in the 25-54 year age category who withdraw books or other materials on household applications of sustainable energy techniques and technologies. This age category contains the people most likely to be building or retrofitting a house. The relevant materials would have to be identified and flagged as they were withdrawn. So doing will require some modifications of the existing software for materials checkout. EES, in conjunction with Lewis and Clark Library, would be responsible for contracting this work and preparing the report.

Impact evaluation is more complicated, but not impossible. It would involve correlating borrowing of library materials with reduced use of non-renewable energy in a living unit. Information on borrowing patterns will be available from the process evaluation described above. Aggregated fuel consumption data potentially is available from the local utilities. The crucial element would be the link between a specific library patron and a specific fuel bill, which need not be in the patron's name. The feasibility of establishing such an evaluation process will be investigated in the course of the demonstration project. EES would work with the local utilities to develop any necessary software. Whatever system was developed would have to guarantee the privacy of the library patron. As an alternative, questionnaires could be sent to those withdrawing sustainable energy information materials. Patron consent may be necessary to develop a mailing list. In either event, this information would be available to the DOE evaluation team.

Building and Finance Program Measure: Development of an evaluation system for this measure must wait on the results of the pilot phase to be carried out in Billings. The purpose of such an evaluation would be to define the link between activities of lending institutions and the energy efficiency of local buildings. An evaluation of intervening factors would consider the number and nature of new programs related to sustainable energy which are initiated by the lending institutions. Two or three audits will be conducted during the pilot phase itself. Building energy consumption prior to the audits can be compared with subsequent energy consumption and again after any retrofits, to determine the impact of those EES activities. Data for this assessment would be collected during the audit; the remainder should be.generated as the building owner manages building energy use. Provision of that data for a specified period of time could be made a condition for receipt of an audit.

Master Conserver Program Measure: Only process evaluation will be attempted. Names and addresses of people requesting advice will be kept according to standard Cooperative Extension Service practice. This information will be used in future program development.

SECTION 7:
ADDITIONAL TECHNICAL SUPPORT

SECTION 7.A. CENTRALIZED TECHNICAL SUPPORT

The Energy Division, through the EES program, will provide centralized technical support for the Technical Reference Center Program Measure, the Building and Finance Program Measure, and the Master Conserver Program Measure.

EES will provide bulk quantities of free state and Federal publications to all program measures.

EES will provide publicity for the Technical Reference Center Program Measure and the Building and Finance Program Measure. EES is better able to command state-wide attention than are the organizations which are delivering service for these measures. Included under publicity services would be providing liaison between the service delivery organizations and other organizations. For the Building and Finance Program Measure, EES will provide contacts with state-wide financial associations and with buildings-related financial activities of state government, such as the Housing Board.

EES will provide technical training and continuing technical advice for the sustainable energy librarian to be hired under the Technical Reference Center Program Measure. This will permit Lewis and Clark Library to concentrate initially on library sciences questions.

For the Building and Finance Program Measure, EES will assemble documentation of the relation between market value, rent value and loan failure, and the energy aspects of the building and/or the business operations. The decision to conduct a study specific to Montana will be based on the findings of the pilot program in Billings. EES also will provide some of the workshops on sustainable energy for BiCEP.

EES will assist Cooperative Extension Service in developing and presenting training workshops for the master conservers.

Coordination of technical support from EES with service delivery by other organizations should present minimal problems. This can be dealt with at the regular coordination meetings already scheduled (see Section 3).

SECTION 7.B. TECHNICAL SUPPORT INSTITUTE

EES will not establish a technical support institute.

SECTION 8:
IMPLEMENTATION OF THE STATE PLAN

SECTION 8.A. PROCEDURES TO ACHIEVE TIMELY IMPLEMENTATION

The Energy Division, Department of Natural Resources and Conservation, will be responsible for achieving a timely implementation of the EES plan. Procedures to be used will be based on the experience the Energy Division has obtained in managing the State Energy Conservation Program.

First, obligations of the contractors will be clearly spelled out in attachments to the standard State contract form. Record keeping and reporting requirements, as well as the pertinent Federal requirements, will be detailed. Timelines for the various tasks called for under the contract will be set. A system will be established to monitor contracts to ensure compliance.

Second, EES staff persons will be meeting with service delivery organizations regularly. Data on which performance records can be based will be gathered in those meetings. Changes in the State plan or in Federal requirements also will be covered at those meetings.

Third, expenditures will be monitored using the Statewide Budget and Accounting System (SBAS). This system provides all State programs with a monthly report on their finances by object of expenditure.

Fourth, the EES staff, using SBAS and information gathered from the contractors, will assess the monthly progress of EES. Changes in plan, when necessary, will be carried out as the quarterly report to DOE is compiled.

SECTION 8.B. RECORDKEEPING ASSURANCE

As a condition of receipt of a grant for the Energy Extension Service, the State hereby certifies and assures that:

[✓] The grantee will maintain or require other participating entities within the State to maintain, and make available upon request to the Regional Representative, such records as the Secretary may require, with respect to the use and expenditure of financial assistance provided to the grantee, or to entities within the State.

SECTION 9:
BUDGET

NOTES ON THE BUDGET

SALARIES (Annual)

Administrator	$28,973
Program Manager	17,684
Local Government Specialist	16,232
Building and Finance Specialist	16,232
Outreach and Technical Support Person	13,570
Secretary	9,746

TRAVEL

All travel is for in-state, save for the following amounts:

Local Government Energy Management	$ 300
Technical Reference Center	480
Program Administration	1,000
TOTAL	1,780

Motor Pool milage is charged at 18.25¢/mile.

Per diem rates are as follows:

	In-State	Out-of-State
Lodging (maximum)	$21.00	$40.00
Meals:		
Breakfast	2.00	3.00
Lunch	3.50	5.00
Dinner	6.50	8.50
	$12.00	$16.50

EQUIPMENT

	Quantity	Cost
Technical Reference Center:		
Electric Typewriter	1	$ 900
Program Administration:		
Desks	3	993
Chairs	6	894
Desk Lamps	5	145
In-Out Baskets	5	13
Typewriter	1	900
Typewriter Stands	2	248
Calculator	1	231
Set of Shelves	2	180
Waste Baskets	5	45
Filing Cabinets	3	576
		$ 5,125

SUPPLIES AND PRINTING

Printing

Local Government Energy Management	$ 640
Energy and Community Planning	125
Technical Reference Center*	7,400
Building and Finance*	3,600
Master Conserver*	3,500
Program Administration	3,300
	$18,565

*May include purchase of bulk quantities of Federal pamphlets and brochures.

CONTRACTUAL

Local Government Energy Management

Consultant: Will provide technical advice on establishing an energy management plan. Will provide 36 days of consultation at $200/day. Each participating city will receive at least twenty hours consultation; the remainder of the consulant's time will be spent with EES staff and traveling.

Data Collector: Will travel to medium-sized cities across the state gathering data for energy consumption reports. Will receive $7.69/hour for 560 hours (14 weeks).

Energy and Community Planning

Consultant: Will receive $200/day for 45 days to develop model regulations.

Technical Reference Center

Systems Consultant: Will modify or add to computer software of existing library materials check-out system to facilitate compilation of data for independent evaluation. Will receive $250/day for 24 days.

Program Administration

Systems Consultant: Will modify or add to computer software of existing utility billing system. Modifications/additions will provide feedback to consumers about their energy use. Consultant will receive $250/day for 24 hours.

SUPPLIES AND PRINTING - CONTRACTORS

Printing

Lewis and Clark Library	$ 3,500
BiCEP	900
Cooperative Extension Service	$ 1,500
	$ 5,900

ALTERNATE PART III

PART III – BUDGET INFORMATION
SET I

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds (c)	Estimated Unobligated Funds (d)	New or Revised Budget DOE/EES (e)	New or Revised Budget All other (f)	New or Revised Budget Total (g)
1. EES	81.050	$	$	$ 289,600	$ 11,000	$ 300,600
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES

6. Object Class Categories	Grant Program, Function or Activity (1)	(2) CES	(3)	(4)	Total (5)
a. Personnel	$ 54,215	$ 11,000	$	$	$ 65,215
b. Fringe Benefits 18%	9,759				9,759
c. Travel	6,530				6,530
d. Equipment	5,125				5,125
e. Supplies	20,770				20,770
f. Contractual	184,046				184,046
g. Construction	–				–
h. Other rent, phone, ~~postage~~	3,733				3,733
i. Total Direct Charges	284,178	11,000			295,178
j. Indirect Charges 10% (a)	5,422				5,422
k. TOTALS	$ 289,600	$ 11,000	$	$	$ 300,600
7. Program Income	$	$	$	$	$
7a. SECP funds (if any) included in total (Line K)					

Application for Federal Assistance (Nonconstruction Programs)

SECTION C – NON-EES RESOURCES

(a) Grant Program	(b) APPLICANT	(c) STATE	(d) OTHER SOURCES	(e) TOTALS
8. CES	$	$	$ 11,000	$ 11,000
9.				
10.				
11.				
12. TOTALS	$	$	$	$

SECTION D – FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal EES	$ 289,600	$ –	$ 45,000	$ 100,000	$ 144,600
14. Non-Federal All other	11,000	–	3,000	5,000	3,000
15. TOTAL	$ 300,600	$ –	$ 48,000	$ 105,000	$ 147,600

SECTION E – BUDGET ESTIMATES OF EES FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b) FIRST	(c) SECOND	(d) THIRD	(e) FOURTH
16. Energy Extension Service	$ 300,600	$ 320,000	$ 350,000	$
17.				
18.				
19.				
20. TOTALS	$	$	$	$

SECTION F – OTHER BUDGET INFORMATION

(Attach additional Sheets if Necessary)

21. Direct Charges: 284,178

22. Indirect Charges: 5,422

23. Remarks:

PART IV PROGRAM NARRATIVE (Attach per Instruction)

Application for Federal Assistance (Nonconstruction Programs)

PART III – BUDGET INFORMATION
SET II

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No (b)	Estimated Unobligated Funds		New or Revised Budget		
		DOE/EES (c)	All other (d)	DOE/EES (e)	All other (f)	Total (g)
1. EES	81.050	$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) Local Gov. Energy Mgmt	(2) Energy & Com. Planning	(3) Technical Ref. Center	(4) Building & Finance	
a. Personnel	$ 16,699	$ 3,278	$ 4,879	$ 8,631	$
b. Fringe Benefits 18%	3,006	590	878	1,554	
c. Travel	2,500	100	1,180	800	
d. Equipment	–	–	900	–	
e. Supplies	1,620	200	7,600	4,000	
f. Contractual	95,000	9,200	42,211	18,435	
g. Construction	–	–	–	–	
h. Other Rent, phone, postage	500	–	1,000	500	
i. Total Direct Charges	119,325	13,368	58,648	33,920	
j. Indirect Charges 10% (a)	1,670	328	488	863	
k. TOTALS	$ 120,995	$ 13,696	$ 59,136	$ 34,783	$
7. Program Income	$ 0	$ 0	$ 0	$ 0	$
7a. SECP funds (if any) included in total (Line K)	0	0	0	0	

Application for Federal Assistance (Nonconstruction Programs)

PART III – BUDGET INFORMATION
SET II

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds		New or Revised Budget		
		DOE/EES (c)	All other (d)	DOE/EES (e)	All other (f)	Total (g)
1. EES	81.050	$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES

6. Object Class Categories	Grant Program, Function or Activity				Total
	(1) Master Conserver	(2) Program Admin.	(3)	(4)	(5)
a. Personnel	$ 6,261	$ 14,467	$	$	$ 54,215
b. Fringe Benefits 18%	1,127	2,604			9,759
c. Travel	850	1,100			6,530
d. Equipment	–	4,225			5,125
e. Supplies	3,700	3,650			20,770
f. Contractual	11,700	7,500			184,046
g. Construction	–	–			–
h. Other rent, phone, postage	1,000	733			3,733
i. Total Direct Charges	24,638	34,279			284,178
j. Indirect Charges 10%(a)	626	1,447			5,422
k. TOTALS	$ 25,264	$ 35,726	$	$	$ 289,600
7. Program Income	$ 0	$ 0	$	$	$ 0
7a. SECP funds (if any) included in total (Line K)	0	0			0

Application for Federal Assistance (Nonconstruction Programs)

PART III – BUDGET INFORMATION
SET II

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No. (b)	Estimated Unobligated Funds		New or Revised Budget		
		DOE/EES (c)	All other (d)	DOE/EES (e)	All other (f)	Total (g)
1. EES	81.050	$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES Local Government Energy Management

6. Object Class Categories	Grant Program, Function or Activity				Total
	(1) 4 Large Cities	(2) Consultant	(3) Data Collector	(4)	(5)
a. Personnel	$	$ 7,200	$ 4,300	$	$ 11,500
b. Fringe Benefits					
c. Travel		1,500	2,000		3,500
d. Equipment					
e. Supplies					
f. Contractual	80,000				80,000
g. Construction					
h. Other					
i. Total Direct Charges	80,000				95,000
j. Indirect Charges					
k. TOTALS	$ 80,000	$ 8,700	$ 6,300	$	$ 95,000
7. Program Income	$ 0	$ 0	$ 0	$	$ 0
7a. SECP funds (if any) included in total (Line K)	0	0	0		0

Application for Federal Assistance (Nonconstruction Programs)

PART III – BUDGET INFORMATION
SET II

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No (b)	Estimated Unobligated Funds		New or Revised Budget		
		DOE/EES (c)	All other (d)	DOE/EES (e)	All other (f)	Total (g)
1. EES	81.050	$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES Energy and Community Planning

6. Object Class Categories	Grant Program, Function or Activity				Total
	(1) Consultant	(2)	(3)	(4)	(5)
a. Personnel	$ 9,000	$	$	$	$ 9,000
b. Fringe Benefits					
c. Travel	200				200
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges					
j. Indirect Charges					
k. TOTALS	$ 9,200	$	$	$	$ 9,200
7. Program Income	$ 0	$	$	$	$ 0
7a. SECP funds (if any) included in total (Line k)	0				0

Application for Federal Assistance (Nonconstruction Programs)

PART III – BUDGET INFORMATION
SET II

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No (b)	Estimated Unobligated Funds		New or Revised Budget		
		DOE/EES (c)	All other (d)	DOE/EES (e)	All other (f)	Total (g)
1. EES	81.050	$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES Technical Reference Center

6. Object Class Categories	Grant Program, Function or Activity				Total
	(1) Lewis & Clark	(2) Systems Consultant	(3) RECON	(4)	(5)
a. Personnel	$ 18,251	$ 6,000	$	$	$ 24,251
b. Fringe Benefits 18%	3,285				3,285
c. Travel	2,000				2,000
d. Equipment	–				–
e. Supplies & Printing	7,000		2,000		9,000
f. Contractual *	500				500
g. Construction	–				–
h. Other	1,350				1,350
i. Total Direct Charges	32,386	6,000	2,000		40,386
j. Indirect Charges 10% (a)	1,825	–	–		1,825
k. TOTALS	$ 34,211	$ 6,000	$ 2,000	$	$ 42,211
7. Program Income	$ 0	$ 0	$ 0	$	$ 0
7a. SECP funds (if any) included in total (Line K)	0	0	0		0

* Consultant fees and travel for speakers.

Application for Federal Assistance (Nonconstruction Programs)

PART III – BUDGET INFORMATION
SET II

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No (b)	Estimated Unobligated Funds DOE/EES (c)	Estimated Unobligated Funds All other (d)	New or Revised Budget DOE/EES (e)	New or Revised Budget All other (f)	Total (g)
1. EES	81.050	$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES Buildings and Finance

6. Object Class Categories	Grant Program, Function or Activity (1) BiCEP	(2) Audits	(3)	(4)	Total (5)
a. Personnel	$ 4,500	$	$	$	$ 4,500
b. Fringe Benefits 18%	810				810
c. Travel	100				100
d. Equipment	–				–
e. Supplies & Printing	1,000				1,000
f. Contractual	1,000*	10,500#			11,500
g. Construction	–				–
h. Other	75				75
i. Total Direct Charges	7,485	10,500			17,985
j. Indirect Charges 10%	450	–			450
k. TOTALS	$ 7,935	$ 10,500	$	$	$ 18,435
7. Program Income	$ 0	$ 0	$	$	$ 0
7a. SECP funds (if any) included in total (Line K)	0	0			0

* Consultant fees and travel for speakers

Engineer/architect fees

Application for Federal Assistance (Nonconstruction Programs)

PART III – BUDGET INFORMATION
SET II

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No (b)	Estimated Unobligated Funds		New or Revised Budget		
		DOE/EES (c)	All other (d)	DOE/EES (e)	All other (f)	Total (g)
1. EES	81.050	$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES Master Conserver

6. Object Class Categories	Grant Program, Function or Activity (1) Cooperative Extension Service	(2)	(3)	(4)	Total (5)
a. Personnel	$ –	$	$	$	$ –
b. Fringe Benefits	–				–
c. Travel	3,000				3,000
d. Equipment	–				–
e. Supplies & Printing	4,700				4,700
f. Contractual *	2,000				2,000
g. Construction	–				–
h. Other	2,000				2,000
i. Total Direct Charges	11,700				11,700
j. Indirect Charges 10% (a)	–				–
k. TOTALS	$ 11,700	$	$	$	$ 11,700
7. Program Income	$ 0	$	$	$	$ 0
7a. SECP funds (if any) included in total (Line K)	0				0

*Consultant fees and travel for speakers.

Application for Federal Assistance (Nonconstruction Programs)

PART III – BUDGET INFORMATION
SET II

SECTION A – BUDGET SUMMARY

Grant Program, Function or Activity (a)	Federal Catalog No (b)	Estimated Unobligated Funds		New or Revised Budget		
		DOE/EES (c)	All other (d)	DOE/EES (e)	All other (f)	Total (g)
1. EES	81.050	$	$	$	$	$
2.						
3.						
4.						
5. TOTALS		$	$	$	$	$

SECTION B – BUDGET CATEGORIES Program Administration

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) Tech Review	(2) Systems Consultant	(3)	(4)	
a. Personnel	$ 1,500	$ 6,000	$	$	$ 7,500
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other					
i. Total Direct Charges					
j. Indirect Charges					
k. TOTALS	$ 1,500	$ 6,000	$	$	$ 7,500
7. Program Income	$ 0	$ 0	$	$	$ 0
7a. SECP funds (if any) included in total (Line K)	0	0			0

Application for Federal Assistance (Nonconstruction Programs)

SECTION 10:
GRANT MANAGEMENT SUMMARY REPORTS

ESTIMATED CONTACTS IN 1980

The Montana EES is directed primarily at those who influence energy consumption. Efforts will be directed to influencing the actions of institutions and success or failure will be measured accordingly. Nonetheless, institutions are made up of individuals, and EES must influence individuals. Some very rough estimate of the number of individuals contacted in the first year can be made by program measure.

Local Government Energy Management: Government Officials - 80

Energy and Community Planning: (None)

Technical Reference Center: Librarians - 80
General Public (25-54 years old) - 10,000

Building and Finance: Lending Officials - 30
General Public - depends on condition of economy
Small Business - depends on condition of economy

Master Conserver: General Public - 900

Section I (Alternate)
Grant Management Summary Report

1. Program/Function Identification No.	2. Program/Function Title	3. Reporting Period
	Local Government Energy Management	_____ through _____

4. Name and Address
Energy Division
Department of Natural Resources & Conservation
32 South Ewing
Helena, MT 59601

5. Start Date

6. Completion Date

7. BP ~~CY 80~~ 8. Quarters – 1 – – 2 – – 3 – – 4 –

9. Cost Status — a. Dollars Expressed in: Thousands b. Dollar Scale

10. Cost Graph

Fund Source		Quarter 1	2	3	4	Cum. to Date	Tot. Plan
EES	P	–	12	37	72		121
	A						
	P						
	A						
	P						
	A						
	P						
	A						
	P						
	A						
Total P		–	12	37	72		121
Total A							

P = Planned A = Actual

c. Accrued Costs

Planned	–			12			37			72		
Actual												
Variance												

11. Major Milestone Status	Units Planned / Units Completed	Schedule
a. Prepare large city planning package	P 1 / C	
b. Hire local government coordinator	P 1 / C	
c. Develop and issue RFP	P / C	
d. Provide technical assistance to interested cities	P 10 / C	
e. Select grantees	P 4 / C	
f. Monitor grantees	P 4 / C	
g. Develop energy consumption profile package	P 1 / C	
h. Gather energy consumption data from medium cities	P 18 / C	
i. Prepare energy profiles	P 18 / C	
j. Review profiles with city officials	P 18 / C	
k. Develop Energy Management Plan implementation workshops	P 4 / C	
l.	P / C	
m.	P / C	
n.	P / C	
o.	P / C	
p.	P / C	
q.	P / C	

12. Remarks

13. Signature of Program/Function Manager and Date

14. Signature of EES Director and Date

Section I (Alternate)
Grant Management Summary Report

1. Program/Function Identification No.	2. Program/Function Title	3. Reporting Period
	Energy and Community Planning	_____ through _____

4. Name and Address
Energy Division
Department of Natural Resources and Conservation
32 South Ewing
Helena, MT 59601

5. Start Date

6. Completion Date

7. BP CY 80

8. Quarters – 1 – – 2 – – 3 – – 4 –

9. Cost Status —a. Dollars Expressed in: Thousands

b. Dollar Scale

10. Cost Graph

Fund Source		Quarter 1	2	3	4	Cum. to Date	Tot. Plan
EES	P	–	–	1	13		14
	A						
	P						
	A						
	P						
	A						
	P						
	A						
	P						
	A						
Total P		–	–	1	13		14
Total A							

P = Planned A = Actual

14 12 10 8 6 4 2

c. Accrued Costs

Planned		–			–			1			13		
Actual													
Variance													

11. Major Milestone Status	Units Planned / Units Completed	Schedule
a. Evaluate available material and set topic priorities	P / C	
b. Select consultant	P 1 / C	
c. Draft model regulations	P / C	
d.	P / C	
e.	P / C	
f.	P / C	
g.	P / C	
h.	P / C	
i.	P / C	
j.	P / C	
k.	P / C	
l.	P / C	
m.	P / C	
n.	P / C	
o.	P / C	
p.	P / C	
q.	P / C	

12. Remarks

13. Signature of Program/Function Manager and Date

14. Signature of EES Director and Date

Section I (Alternate)
Grant Management Summary Report

1. Program/Function Identification No.	2. Program/Function Title	3. Reporting Period
	Technical Reference Center	_____ through _____

4. Name and Address
Energy Division
Department of Natural Resources and Conservation
32 South Ewing
Helena, MT 59601

5. Start Date

6. Completion Date

7. BP CY 80 | 8. Quarters – 1 – – 2 – – 3 – – 4 –

9. Cost Status —a. Dollars Expressed in: Thousand

10. Cost Graph

Fund Source		Quarter 1	2	3	4	Cum. to Date	Tot. Plan
EES	P	–	9	19	31		59
	A						
	P						
	A						
	P						
	A						
	P						
	A						
	P						
	A						
Total	P	–	9	19	31		59
Total	A						

P = Planned A = Actual

b. Dollar Scale

60
50
40
30
20
10

c. Accrued Costs

Planned	–			9			19				31		
Actual													
Variance													

11. Major Milestone Status	Units Planned / Units Completed	Schedule
a. Award contract	P 1 / C	
b. Design patron tracking system	P 1 / C	
c. Design consumer contact sheet	P 1 / C	
d. Implement tracking system	P 1 / C	
e. Develop core and topical lists	P 6 / C	
f. Develop local energy information and referral network	P 1 / C	
g. Develop and implement publicity campaign for libraries	P 1 / C	
h. Develop and present librarian workshops	P 6 / C	
i.	P / C	
j.	P / C	
k.	P / C	
l.	P / C	
m.	P / C	
n.	P / C	
o.	P / C	
p.	P / C	
q.	P / C	

12. Remarks

13. Signature of Program/Function Manager and Date

14. Signature of EES Director and Date

Section I (Alternate)
Grant Management Summary Report

1.- Program/Function Identification No.	2. Program/Function Title	3. Reporting Period
	Building and Finance	_____ through _____

4. Name and Address
Energy Division
Department of Natural Resources and Conservation
32 South Ewing
Helena, MT 59601

5. Start Date

6. Completion Date

7. BP CY 80	8. Quarters
	– 1 – – 2 – – 3 – – 4 –

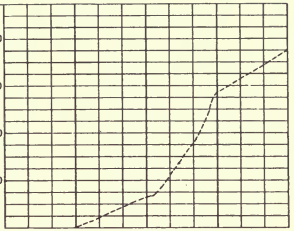
9. Cost Status —a. Dollars Expressed in: Thousands

10. Cost Graph

Fund Source		Quarter 1	2	3	4	Cum. to Date	Tot. Plan
EES	P	–	6	20	9		35
	A						
	P						
	A						
	P						
	A						
	P						
	A						
	P						
	A						
Total	P	–	6	20	9		35
Total	A						

P = Planned A = Actual

b. Dollar Scale



c. Accrued Costs

Planned		–			6			20			9		
Actual													
Variance													

11. Major Milestone Status	Units Planned / Units Completed	Schedule
a. Hire local coordinator	P 1 / C	
b. Review available literature on energy and loans	P / C	
c. Develop building industry leverage plans using lending institutions	P / C	
d.	P / C	
e. Complete interim report on energy and loans literature	P 1 / C	
f. Conduct energy audits at centers of influence	P 3 / C	
g. Hold seminars on audits	P 3 / C	
h. Implement leverage plan in Billings area	P / C	
i. Develop plan to expand program measure state-wide	P / C	
j.	P / C	
k.	P / C	
l.	P / C	
m.	P / C	
n.	P / C	
o.	P / C	
p.	P / C	
q.	P / C	

12. Remarks

13. Signature of Program/Function Manager and Date

14. Signature of EES Director and Date

Section I (Alternate)

Grant Management Summary Report

1. Program/Function Identification No.	2. Program/Function Title	3. Reporting Period
	Master Conserver	_____ through _____

4. Name and Address
Energy Division
Department of Natural Resources and Conservation
32 South Ewing
Helena, MT 59601

5. Start Date

6. Completion Date

7. BP CY 80

8. Quarters – 1 – – 2 – – 3 – – 4 –

9. Cost Status —a. Dollars Expressed in: Thousands b. Dollar Scale

10. Cost Graph

Fund Source		Quarter 1	2	3	4	Cum. to Date	Tot. Plan
EES	P	–	7	10	8		25
	A						
CES	P	–	3	5	3		11
	A						
	P						
	A						
	P						
	A						
	P						
	A						
Total P		–	10	15	11		36
Total A							

P = Planned A = Actual

c. Accrued Costs

Planned	–			10			15			11		
Actual												
Variance												

11. Major Milestone Status	Units Planned / Units Completed	Schedule
a. Award contract for Master Conserver program	P 1 / C	
b. Develop training program for Master Conserver	P / C	
c. Select Master Conservers	P 30 / C	
d. Implement training program	P / C	
e. Deliver Master Conserver service	P / C	
f.	P / C	
g.	P / C	
h.	P / C	
i.	P / C	
j.	P / C	
k.	P / C	
l.	P / C	
m.	P / C	
n.	P / C	
o.	P / C	
p.	P / C	
q.	P / C	

12. Remarks

13. Signature of Program/Function Manager and Date

14. Signature of EES Director and Data

Section I (Alternate)
Grant Management Summary Report

1. Program/Function/Identification No.	2. Program/Function Title	3. Reporting Period
	Program Administration	_____ through _____

4. Name and Address
Energy Division
Department of Natural Resources and Conservation
32 South Ewing
Helena, MT 59601

5. Start Date

6. Completion Date

7. FY CY 80 | 8. Quarters

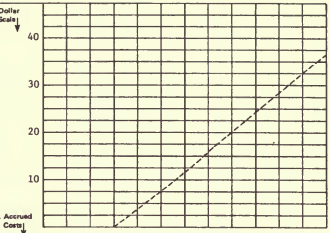
–	1	–	–	2	–	–	3	–	–	4	–

9. Cost Status –a. Dollars Expressed in: Thousands b. Dollar Scale

10. Cost Graph

Fund Source		Quarter 1	2	3	4	Cum. to Date	Tot. Plan
EES	P	–	11	13	12		36
	A						
	P						
	A						
	P						
	A						
	P						
	A						
	P						
	A						
Total	P	–	11	13	12		36
Total	A						

P = Planned A = Actual



	–		11		13		12	
Planned								
Actual								
Variance								

11. Major Milestone Status	Units Planned / Units Completed	Schedule
a. Hire staff	P 5 / C	
b. Develop and up-date briefing book	P 1 / C	
c. Prepare quarterly reports	P 2 / C	
d. Review publications for technical accuracy	P 25 / C	
e. Prepare monthly news bulletin	P 6 / C	
f. Develop operationally based data collection systems	P 1 / C	
g. Develop annual work plan	P 1 / C	
h.	P / C	
i.	P / C	
j.	P / C	
k.	P / C	
l.	P / C	
m.	P / C	
n.	P / C	
o.	P / C	
p.	P / C	
q.	P / C	

12. Remarks

13. Signature of Program/Function Manager and Date

14. Signature of EES Director and Date

APPENDIX A
COMMENT PROCESS DESCRIPTION

The Energy Division sought comments from individuals and organizations throughout the development of the EES plan. The formal comment process began in June, 1978, but was suspended following Congressional action postponing the implementation of EES. The formal process was resumed in October, 1979, following the issuance of the final regulations in August, and the DOE briefing sessions in September. In addition to the formal process, comments were collected on an informal basis at any meetings sponsored or attended by the EES coordinator.

The Energy Office, a predecessor to the present Energy Division, held a meeting June 22, 1978, of representatives of key groups of small energy consumers and those who influence them. These included representatives from the Montana State Library, the Montana League of Cities and Towns, Alternative Energy Resources Organization (AERO), Office of the Superintendent of Public Instruction, Cooperative Extension Service, Department of Community Affairs (Human Resources Division), Montana Chamber of Commerce, University of Montana and Environmental Protection Agency Montana Energy Operations Office. (See List 1.)

During the day-long meeting, the participants were briefed on the national Energy Extension Service program. Directions for a Montana EES were discussed. The participants indicated they preferred that the Energy Office draw up a "short list" of ideas for an EES, a list which they could then comment on. All felt that EES potentially could mesh with their organizations. The need for targeting EES services for specific areas, rather than simply making them available state-wide, was emphasized. Criteria for targeting included demonstrated interest in conservation and renewable energy, presence of existing delivery organizations, and need for economic assistance in general. Potential energy savings per se was not brought up as a criterion. The League of Cities and Towns, the Department of Community Affairs, and AERO argued strongly for community-based energy programs.

During the period in which the status of the national program was unclear, EES provided some information and outreach services to small consumers on a pilot basis. The most significant of these were a workshop on earth sheltered housing, a workshop on attached solar greenhouse construction, a series of seminars on the Davis, CA, energy program and a seminar on the Small Farms Energy Project in Nebraska. These and other meetings with the public provided a field test of different means of networking, and gave Montanans an opportunity to discuss the kinds of energy information services they were seeking.

In October, 1979, following final approval of the national program, a ten-page discussion paper outlining possible areas of activity for EES was prepared and distributed, in accordance with the recommendation of the June 1978 meeting. Copies were mailed to all utilities, the two major universities, Cooperative Extension Service, the major citizen groups, and a variety of other organizations, agencies, businesses, and individuals (List 2). Comments were invited and discussion meetings were held with all those who requested one. In addition, appointments were sought with certain key organizations and individuals to guarantee that their thoughts on EES would be included in the planning process. (See List 3 for those who provided comments.) All told, 33 discussion sessions were held in nine cities; over 80 people voiced their opinions before the plan was written.

Comments received from the public were incorporated in the EES plan to the greatest extent possible. Rather than detail how each affected the content of the plan, a summary of suggestions not included in the plan might be more instructive. These comments can be grouped into three categories: 1) recommendations that direct services, especially hands-on projects, be offered in the residential sector; 2) recommendations that specific programs be developed for the agricultural sector; and 3) recommendations that funding be provided to community energy groups.

Numerous people recommended that direct services be provided to the residential sector. EES originally was intended to provide these services; unfortunately, the level of funding was such that only a limited number of people could be served. By way of comparison to the $289,600 EES received, Cooperative Extension Service currently has $4,773,900 to serve a much smaller audience. Given this budgetary constraint, directing EES towards those who influence the energy use of small consumers seemed the more productive course of action. Also, the implementation of the Residential Conservation Service by the end of 1980 should go some way toward meeting the need of residential consumers for direct services.

EES has no programs specifically for the production side of the agricultural sector. This sector consumes only 4.4% of the energy used in Montana; energy for the production of fertilizers and pesticides accounts for 44% of that use (MERDI, 1977). Again, limited funds dictated that effort be directed towards areas of greater return. Also, some of the

organizations offering comments already, on their own, were investigating the possibility of programs in this area. In particular, the Montana Power Company showed an interest in an irrigation pump audit program. EES will follow developments in this area closely, and will provide assistance when possible.

Several individuals and organizations argued that EES should fund community energy groups since, in comparison with local governments, they would be faster-moving and more committed to conservation and renewable energy. This argument is not without merit. Certainly, all levels of government have done less than they could to promote conservation and renewable energy. Ultimately, however, governments must take some role in this area, since they possess resources and authority not available to citizens' groups. DNRC feels that by working directly with local governments, it can encourage them to take action. DNRC recognizes the important contributions citizen groups have made in the development of conservation and renewable energy. DNRC will look more favorably at working with local governments which promote substantive citizen participation in energy matters.

LIST 1: **ATTENDEES OF JUNE, 1978 MEETING**

Forest Boles, Montana Chamber of Commerce
Harold Chambers, Montana State Library
Kye Cochran, Alternative Energy Resources Organization
Ed Eschler, Office of the Superintendent of Public Instruction
Al Lefohn, Environmental Protection Agency Montana Energy Operations Office
Jim Lubek, Montana League of Cities and Towns
Raymond Murray, University of Montana
Charles Rust, Cooperative Extension Service
Gary Wiebe, Human Resources, Department of Community Affairs

LIST 2: **EES DISCUSSION PAPER MAILING LIST**

Pete Antonioli, Montana Power Company
Jim Baerg, Baerg Construction Company
Karen Barclay, MERDI
Bill Boggs, Missoula City Council
John Boland, Community Energy, Inc.
Kye Cochran, AERO
Steve Coffel, Contractor
Wayne Cross, HRDC District 4
Steve Doherty, Northern Plains Resource Council
Cindy Elliot, Montana Small Business Association
Ron Erickson, Environmental Studies Program, University of Montana
Beth Givens, Montana State Library
Ken Haag, Billings City Engineer
Levi Hanson, Sunshine Engineering
Ann Hausmann, Research Office, University of Montana
Dr. John Jutila, Vice-President for Research, Montana State University
Connie Krautter, Miles City Local Energy Organizer
Dr. Allen Lefohn, Flow Resources Corporation
Jim Lubek, Helena Energy Task Force
Chris Mangiantini, NCAT
Bruce McCallum, Liberty County Extension Agent
Margie McDonald, Northern Plains Resource Council
Susan McDougal, Hamilton Local Energy Organizer
Henry Meyers, Montana-Dakota Utility
Dan Mizner, Montana League of Cities and Towns
Ellyn Murphy, Havre Local Energy Organizer
John Nicols, Lewis and Clark Library
Jim Nolan, Community Resources Division, Department of Community Affairs
Jim Nybo, Helena City Commission
Steve Ottenbreit, Drapes Engineering
Dale Packard, Bozeman Local Energy Organizer
Gus Percha, Nicholson, Inc.
Charlie Rial, Abacon
Sheila Rice, Great Falls Gas Company
Rural Electric Cooperatives
- Beartooth Electric Cooperative
- Big Flat Electric Cooperative
- Big Horn County Electric Cooperative
- Fergus Electric Cooperative
- Flathead Electric Cooperative
- Glacier Electric Cooperative
- Goldenwest Electric Cooperative
- Hill County Electric Cooperative
- Lincoln Electric Cooperative
- Lower Yellowstone REA
- Marias River Electric Cooperative
- McCone Electric Cooperative
- Mid-Yellowstone Electric Cooperative
- Missoula Electric Cooperative
- Northern Electric Cooperative
- Northern Lights, Inc.
- Park Electric Cooperative
- Ravalli County Electric Cooperative
- Sheridan Electric Cooperative
- Southeast Electric Cooperative
- Sun River Electric Cooperative
- Tongue River Electric Cooperative
- Valley Electric Cooperative
- Vigilante Electric Cooperative
- Yellowstone Valley Electric Cooperative

Tom Schneider, Public Service Commission
Don Snow, Environmental Information Center
Scott Sproull, AERO-West
Mike Stephen, Montana Association of Counties
John Wilkinson, Lewis and Clark County Commissioner
Ann Wilsnack, New Western Energy Show
Jenny Younger, League of Women Voters

LIST 3: PARTIAL LIST OF THOSE PROVIDING COMMENTS ON EES

John Amend, Montana State University
Pete Antonioli, Montana Power Company
Janice Bacino, Lewis and Clark Library
Jim Baerg, Baerg Construction Company
Kurt Baltrusch, Montana-Dakotas Utility
Karen Barclay, MERDI
BiCEP Steering Committee
Lex Blood, Flathead Valley Community College
Bill Boggs, Missoula City Council
John Boland, Community Energy, Inc.
Jim Borzym, Environmental Information Center
Jim Boyer, Meadowlark Associates
Steve Buttress, Great Falls Economic Development Corporation
Kye Cochran, AERO
Steve Coffel, Contractor
Alene Cooper, Montana State Library
Wayne Cross, Havre HRDC
Greg Cunnif, Drapes Engineering
Debbie Cunningham, Montana Power Company
Sandy Dellinger, Cooperative Extension Service
Don Dooley, Local Government Division, Department of Community Affairs
Cindy Elliot, Montana Small Business Association
Ron Erickson, Environmental Studies Program, University of Montana
Joe Freschette, Sunrise Design and Engineering
Beth Givens, Montana State Library
Joe Gonzales, Contractor
Margie Gough, Cummins Associates
Ken Haag, Billings City Engineer
Levi Hanson, Sunshine Engineering
Vern House, Cooperative Extension Service
Bill Hunt, Montana State University
N. J. Hyatt, Mayor, Havre
John Jutila, Montana State University
Clarence Kommers, Montana Power Company
Ruth Kornfield, Billings Local Energy Organizer
Bill Larsen, Montana State University
Al Lefohn, Flow Resources Corporation
Jim Lubek, Helena Energy Task Force
Chris Mangiantini, NCAT
Frank Manley, NCAT
Judy Mathre, Montana League of Women Voters
Margie McDonald, Northern Plains Resource Council
Susan McDougal, Hamilton Local Energy Organizer
John Means, University of Montana
Dan Mizner, Montana League of Cities and Towns
Ellyn Murphy, Havre Local Energy Organizer
John Nicols, Lewis and Clark Library
Jim Nolan, Community Resources Division, Department of Community Affairs
Jim Nybo, Helena City Commission
Ed O'Hair, MERDI
Steve Ottenbreit, Drapes Engineering
Dale Packard, Bozeman Local Energy Organizer
Charlie Rial, Abacon
Sheila Rice, Great Falls Gas Company
Warren Satterlee, Montana-Dakotas Utility
Dick Sheridan, University of Montana
Scott Sproull, AERO-West
Bill Tomlinson, Environmental Studies Library, University of Montana
John Toole, Missoula City Council
Bob Warrington, Montana State University
Carmen Watts, Community Energy, Inc.
Michael Wayman, Drapes Engineering
Jerry Westesen, Cooperative Extension Service
Bob Whalen, Western Montana Independent Truckers Association
John Wilkinson, Lewis and Clark County Commission
Elizabeth Wood, AERO
Wilbur Wood, AERO
Jenny Younger, Montana League of Women Voters

APPENDIX B
COMPLIANCE WITH REGULATIONS

USE OF EES FINANCIAL ASSISTANCE

The Department of Natural Resources and Conservation intends that Department of Energy financial assistance provided for a Montana Energy Extension Service will supplement, and not supplant, Federal, State and local funds.

The Montana EES was designed to supplement and complement existing programs in conservation and renewable energy. An inventory of such programs, conducted during the planning process, guided the program away from situations where EES might supplant present funds.

All contracts issued by EES will contain a clause prohibiting the use of EES funds to supplant current funds.

EES will conduct a regular survey of conservation and renewable energy programs aimed at small energy consumers in Montana (see Section 5.B of the State Plan). This survey should permit an on-going assessment of the extent to which EES is supplementing existing funding.

ENVIRONMENTAL IMPACT DESCRIPTION

The Montana EES does not intend to provide any practical demonstration involving building modifications. No environmental impacts are expected from the direct activities of the Montana EES.

Based on the Environmental Assessment (DOE/EA-0042) of the comprehensive EES program, DOE determined that the EES regulation does not constitute a major Federal action having a significant effect on the quality of the human environment.

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 29-R0218

FEDERAL ASSISTANCE

2. APPLICANT'S APPLICATION — a. NUMBER: | b. DATE: Year 19 80 2 month 13 day | Leave Blank

3. STATE APPLICATION IDENTIFIER — a. NUMBER: 80-02-10 | b. DATE: Year 19 80 2 month 07 day ASSIGNED

1. TYPE OF ACTION (Mark appropriate box):
- ☐ PREAPPLICATION
- ☒ APPLICATION
- ☐ NOTIFICATION OF INTENT (Opt.)
- ☐ REPORT OF FEDERAL ACTION

SECTION I—APPLICANT/RECIPIENT DATA

4. LEGAL APPLICANT/RECIPIENT
- a. Applicant Name: State of Montana
- b. Organization Unit: Dept. of Natural Resources & Conservation
- c. Street/P.O. Box: 32 South Ewing
- d. City: Helena — e. County: Lewis & Clark
- f. State: Montana — g. ZIP Code: 59601
- h. Contact Person (Name & telephone No.): Paul Cartwright 406-449-3940

5. FEDERAL EMPLOYER IDENTIFICATION NO.: 81-0360660

6. PROGRAM (From Federal Catalog) — a. NUMBER: 81.041 — b. TITLE: Energy Extension Service

7. TITLE AND DESCRIPTION OF APPLICANT'S PROJECT

Montana Energy Extension Service (EES)

The EES will provide direct assistance to small energy users, and to those who influence the consumption of small energy users, to encourage adoption of conservation and renewable energy.

(continued on back of this sheet)

8. TYPE OF APPLICANT/RECIPIENT
A—State; B—Interstate; C—Substate District; D—County; E—City; F—School District; G—Special Purpose District; H—Community Action Agency; I—Higher Educational Institution; J—Indian Tribe; K—Other (Specify):
Enter appropriate letter: A

9. TYPE OF ASSISTANCE
A—Basic Grant; B—Supplemental Grant; C—Loan; D—Insurance; E—Other
Enter appropriate letter(s): A

10. AREA OF PROJECT IMPACT (Names of cities, counties, States, etc.): Montana

11. ESTIMATED NUMBER OF PERSONS BENEFITING: 785,000

12. TYPE OF APPLICATION
A—New; B—Renewal; C—Revision; D—Continuation; E—Augmentation
Enter appropriate letter: A

13. PROPOSED FUNDING

a. FEDERAL	$ 289,600 00
b. APPLICANT	00
c. STATE	00
d. LOCAL	00
e. OTHER	11,000 00
f. TOTAL	$ 300,600 00

14. CONGRESSIONAL DISTRICTS OF:
- a. APPLICANT: Entire
- b. PROJECT: State

16. PROJECT START DATE: Year 19 80 4 month 01 day
17. PROJECT DURATION: 33 Months
18. ESTIMATED DATE TO BE SUBMITTED TO FEDERAL AGENCY: Year 19 80 2 month 15 day

15. TYPE OF CHANGE (For 12a or 12c)
A—Increase Dollars; B—Decrease Dollars; C—Increase Duration; D—Decrease Duration; E—Cancellation; F—Other (Specify): N.A.
Enter appropriate letter(s):

19. EXISTING FEDERAL IDENTIFICATION NUMBER: N.A.

20. FEDERAL AGENCY TO RECEIVE REQUEST (Name, City, State, ZIP code): DOE, Denver, CO 80226

21. REMARKS ADDED: ☐ Yes ☒ No

SECTION II—CERTIFICATION

22. THE APPLICANT CERTIFIES THAT ▶ a. To the best of my knowledge and belief, data in this preapplication/application are true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved.

b. If required by OMB Circular A-95 this application was submitted, pursuant to A-95 instructions thereon, to appropriate clearinghouses and all responses are attached. Response attached

(1) Application to state-wide clearinghouse — ☐ Yes ☒ No
(2) ☐ Yes ☐ No
(3)

23. CERTIFYING REPRESENTATIVE — a. TYPED NAME AND TITLE: Thomas L. Judge, Governor — b. SIGNATURE: Thomas L. Judge — c. DATE SIGNED: Year 19 month day

SECTION III—FEDERAL AGENCY ACTION

24. AGENCY NAME

25. APPLICATION RECEIVED: Year 19 month day

26. ORGANIZATIONAL UNIT

27. ADMINISTRATIVE OFFICE

28. FEDERAL APPLICATION IDENTIFICATION

29. ADDRESS

30. FEDERAL GRANT IDENTIFICATION

31. ACTION TAKEN
- ☐ a. AWARDED
- ☐ b. REJECTED
- ☐ c. RETURNED FOR AMENDMENT
- ☐ d. DEFERRED
- ☐ e. WITHDRAWN

32. FUNDING

a. FEDERAL	$ .00
b. APPLICANT	.00
c. STATE	.00
d. LOCAL	.00
e. OTHER	.00
f. TOTAL	$ .00

33. ACTION DATE ▶ Year 19 month day

34. STARTING DATE: Year 19 month day

35. CONTACT FOR ADDITIONAL INFORMATION (Name and telephone number)

36. ENDING DATE: Year 19 month day

37. REMARKS ADDED: ☐ Yes ☐ No

38. FEDERAL AGENCY A-95 ACTION — a. If taking above action, any comments received from clearinghouses were considered. If agency response is due under provisions of Part I, OMB Circular A-95, it has been or is being made.

b. FEDERAL AGENCY A-95 OFFICIAL (Name and telephone no.)

STANDARD FORM 424 PAGE 1 (10-75)
Prescribed by GSA, Federal Management Circular 74-7

Application for Federal Assistance
(Nonconstruction Programs)

SECTION IV—REMARKS *(Please reference the proper item number from Sections I, II or III, if applicable)*

Section I, #7

The EES will provide information regarding the availability, technical details and energy and cost savings potential of such energy techniques and technologies.

PROJECT APPROVAL INFORMATION

OMB Approval No. 80-R0186

PART II

PROJECT APPROVAL INFORMATION

Item 1.
Does this assistance request require State, local, regional, or other priority rating?
____ Yes _X_ No

Name of Governing Body ____
Priority Rating ____

Item 2.
Does this assistance request require State, or local advisory, educational or health clearances?
____ Yes _X_ No

Name of Agency or Board ____
(Attach Documentation)

Item 3.
Does this assistance request require clearinghouse review in accordance with OMB Circular A-95?
_X_ Yes ____ No

(Attach Comments)

Item 4.
Does this assistance request require State, local, regional or other planning approval?
____ Yes _X_ No

Name of Approving Agency ____
Date ____

Item 5.
Is the proposed project covered by an approved comprehensive plan?
____ Yes _X_ No

Check one: State ☐ Local ☐ Regional ☐
Location of Plan ____

Item 6.
Will the assistance requested serve a Federal installation?
____ Yes _X_ No

Name of Federal Installation ____
Federal Population benefiting from Project ____

Item 7.
Will the assistance requested be on Federal land or installation?
____ Yes _X_ No

Name of Federal Installation ____
Location of Federal Land ____
Percent of Project ____

Item 8.
Will the assistance requested have an impact or effect on the environment?
____ Yes _X_ No

See instructions for additional information to be provided.

Item 9.
Will the assistance requested cause the displacement of individuals, families, businesses, or farms?
____ Yes _X_ No

Number of:
Individuals ____
Families ____
Businesses ____
Farms ____

Item 10.
Is there other related assistance on this project previous, pending, or anticipated?
____ Yes _X_ No

See instructions for additional information to be provided. Environmental impact assessed by Federal office

Item 11
Is the project in a designated flood hazard area?
____ Yes _X_ No

See instructions for additional information to be provided.

Application for Federal Assistance (Nonconstruction Programs)

STATE CLEARINGHOUSE DISPOSITION

STATE OF MONTANA

Office of the Governor

Budget and Program Planning

Thomas L. Judge
Governor

George L. Bousliman
Director

Capitol Building - Helena, Montana 59601

PROJECT NOTIFICATION AND REVIEW SIGNOFF

State Application
Identifier (SAI) Number: 80-02-10 Date: February 7, 1980

PROJECT TITLE: Energy Extension Service

APPLICANT AGENCY: Montana Department of Natural Resources, Energy Division

AGENCY ADDRESS: 32 South Ewing, Helena, MT 59601

FEDERAL PROGRAM TITLE, AGENCY, & CATALOG NUMBER: 81.050

Dept. of Energy - Energy Extension Service

AMOUNT OF FEDERAL FUNDS REQUESTED: $289,600.00

PROJECT DESCRIPTION: Reduce the consumption of nonrenewable energy by small scale energy users through workshops, seminars, technical assistance and publications statewide.

CONTACT PERSON: Paul Cartwright PHONE: (406)449-3940

The State Clearinghouse makes the following disposition concerning the above:

X (BLOCK 1) No unresolved problems were identified by the State Clearinghouse in the review process of the above captioned project. This form must be attached to the application submitted to the federal funding agency.

_____ (BLOCK 2) Attached are comments by the State Clearinghouse concerning the review process of the above captioned project. These comments and this form must be attached to the application submitted to the federal funding agency.

H. Agnes Zipperian, Manager
Montana State Clearinghouse

ASSURANCES

PART V

ASSURANCES

The Applicant hereby assures and certifies that he will comply with the regulations, policies, guidelines and requirements, including OMB Circulars No. A-95, A-102 and FMC 74-4, as they relate to the application, acceptance and use of Federal funds for this federally-assisted project. Also the Applicant assures and certifies to the grant that:

1. It possesses legal authority to apply for the grant; that a resolution, motion or similar action has been duly adopted or passed as an official act of the applicant's governing body, authorizing the filing of the application, including all understandings and assurances contained therein, and directing and authorizing the person identified as the official representative of the applicant to act in connection with the application and to provide such additional information as may be required.
2. It will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and in accordance with Title VI of that Act, no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the applicant receives Federal financial assistance and will immediately take any measures necessary to effectuate this agreement.
3. It will comply with Title VI of the Civil Rights Act of 1964 (42 USC 2000d) prohibiting employment discrimination where (1) the primary purpose of a grant is to provide employment or (2) discriminatory employment practices will result in unequal treatment of persons who are or should be benefiting from the grant-aided activity.
4. It will comply with requirements of the provisions of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced as a result of Federal and federally assisted programs.
5. It will comply with the provisions of the Hatch Act which limit the political activity of employees.
6. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act, as they apply to hospital and educational institution employees of State and local governments.
7. It will establish safeguards to prohibit employees from using their positions for a purpose that is or gives the appearance of being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties.
8. It will give the sponsoring agency or the Comptroller General through any authorized representative the access to and the right to examine all records, books, papers, or documents related to the grant.
9. It will comply with all requirements imposed by the Federal sponsoring agency concerning special requirements of law, program requirements, and other administrative requirements.
10. It will insure that the facilities under its ownership, lease or supervision which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities and that it will notify the Federal grantor agency of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for listing by the EPA.
11. It will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234, 87 Stat. 975, approved December 31, 1976. Section 102(a) requires, on and after March 2, 1975, the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards.

Application for Federal Assistance (Nonconstruction Programs)

PART V *(Continued)

The phrase "Federal financial assistance" includes any form of loan, grant, guaranty, insurance payment, rebate, subsidy disaster assistance loan or grant, or any other form of direct or indirect Federal assistance.

It will assist the Federal grantor agency in its compliance with Section 106 of the National Historic Preservation Act of 1966 as amended (16 U.S.C. 470), Executive Order 11593, and the Archeological and Historic Preservation Act of 1966 (16 U.S.C. 469a-1 et seq.) by (a) consulting with the State Historic Preservation Officer on the conduct of investigations, as necessary, to identify properties listed in or eligible for inclusion in the National Register of Historic Places that are subject to adverse effects (see 36 CFR Part 800.8) by the activity, and notifying the Federal grantor agency of the existence of any such properties, and by (b) complying with all requirements established by the Federal grantor agency to avoid or mitigate adverse effects upon such properties.

Application for Federal Assistance (Nonconstruction Programs)

BIBLIOGRAPHY

Bureau of Business and Economic Research.
Housing Needs and Preferences. (Missoula: University of Montana) 1979.

City of Helena.
Energy Report. Helena: 1978.

Department of Natural Resources and Conservation.
Historical Energy Statistics, Vol. 3. (Helena) 1979.

Holt, Suzy.
An Independent Study in Library Community Analysis. (Unpublished manuscript) 1979.

Montana Energy Office.
The Montana Solar Public Opinion Survey. (Helena: Montana Energy Office, now incorporated in Department of Natural Resources and Conservation) 1978.

MERDI.
Montana Energy Conservation Plan Working Papers, 1-12. (Butte: Montana Energy and MHD Research and Development Institute, Inc.) 1977.

Montana State Library.
Montana Library Directory, 1979; With Statistics of Montana Public Libraries July 1, 1977 - June 30, 1978. Helena: 1979.

Nybo, Jim.
A Report on the Ultimate Practical Supply Potential of Emerging Energy Technologies in Montana's Columbia Basin. (Report to Water Resources Division, DNRC) 1979.

US Bureau of the Census.
County Business Patterns, 1977 - Montana. (Washington, D.C.: US Government Printing Office) 1979.

US Department of Interior.
Alaska Natural Gas Transportation Systems. (Washington, D.C.: US Government Printing Office) 1975.

300 copies of this publication were produced at a unit cost of $4.33 per copy, for a total cost of $1,400.00 which includes $1,300.00 for printing and $100.00 for distribution.

Printed by
COLOR WORLD OF MONTANA, INC.
201 E. Mendenhall, Bozeman, MT 59715